

# Recognition of social identities as a mechanism to increase the resilience of individuals, liberal democracies, and societies

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## Table of contents

<b>1 INTRODUCTION</b> .....	<b>1</b>
<b>2 THEORETICAL FRAMEWORK</b> .....	<b>8</b>
<b>2.1 WHAT IS RESILIENCE?</b> .....	<b>8</b>
2.1.1 PSYCHOLOGICAL PERSPECTIVE: INDIVIDUAL RESILIENCE .....	9
2.1.2 POLITICAL SCIENCE PERSPECTIVE: DEMOCRATIC RESILIENCE .....	13
2.1.3 SOCIOLOGICAL PERSPECTIVE: SOCIETAL RESILIENCE .....	16
2.1.4 SUMMARY: WHAT IS RESILIENCE? .....	19
<b>2.2 WHAT ARE (POSITIVE) SOCIAL IDENTITIES?</b> .....	<b>20</b>
2.2.1 COGNITIVE FUNCTION .....	22
2.2.2 EVALUATIVE FUNCTION .....	23
<b>2.3 HOW ARE SOCIAL IDENTITIES CONNECTED WITH RECOGNITION?</b> .....	<b>25</b>
<b>2.4 WHAT MECHANISMS CONNECT RECOGNITION OF SOCIAL IDENTITIES WITH RESILIENCE?</b> .....	<b>28</b>
2.4.1 WEAKENING PERCEIVED THREATS .....	29
2.4.2 ENHANCING SELF-ESTEEM AND SELF-EFFICACY .....	31
2.4.3 SIGNALING BENEVOLENCE AND TRUSTWORTHINESS .....	34
2.4.4 ACTIVATING COLLECTIVE RESPONSIBILITY AND SOLIDARITY NORMS .....	37
<b>2.5 WHICH SOCIAL IDENTITIES DO I ANALYZE? HOW IS THEIR RECOGNITION ASSOCIATED WITH POLITICAL ATTITUDES?</b> .....	<b>38</b>
2.5.1 SOCIAL CLASS IDENTITY .....	41
2.5.2 OCCUPATIONAL IDENTITY .....	42
2.5.3 EAST GERMAN VS WEST GERMAN IDENTITY .....	45
<b>2.6 SUMMARY OF THEORETICAL BACKGROUND</b> .....	<b>46</b>
<b>3 METHODS</b> .....	<b>49</b>
<b>3.1 DATA</b> .....	<b>49</b>
<b>3.2 QUANTIFYING RECOGNITION OF SOCIAL IDENTITIES</b> .....	<b>50</b>
3.2.1 SOCIAL CLASS RECOGNITION .....	51
3.2.2 OCCUPATIONAL RECOGNITION .....	51
3.2.3 JOB RECOGNITION .....	54
3.2.4 EAST AND WEST GERMAN RECOGNITION .....	57
<b>3.3 CONTRIBUTION OF EMPIRICAL STUDIES: HOW IS EACH PAPER CONNECTED</b> .....	<b>57</b>
<b>REFERENCES INTRODUCTION</b> .....	<b>60</b>
<b>4 RESULTS</b> .....	<b>78</b>
<b>4.1 RESULTS PAPER I: OCCUPATIONAL RECOGNITION DURING THE COVID-19 PANDEMIC</b> .....	<b>79</b>
<b>4.2 RESULTS PAPER II: IDENTITY THREATS AS AN EXPLANATION FOR THE RISE OF POPULISM</b> .....	<b>109</b>
<b>4.3 RESULTS PAPER III: RECOGNITION OF SOCIAL CLASS IDENTITIES AND APPROVAL OF CLIMATE CHANGE MITIGATION POLICIES</b> .....	<b>126</b>
<b>5 CONCLUSION</b> .....	<b>181</b>
5.1.1 OCCUPATIONAL RECOGNITION AND COMPLIANCE WITH INFECTION CONTROL MEASURES .....	183

**5.1.2 THREATS TO SOCIAL IDENTITIES AND POPULIST ATTITUDES .....184**  
**5.1.3 SOCIAL CLASS RECOGNITION AND ACCEPTANCE OF CLIMATE CHANGE MITIGATION POLICIES.....186**  
**5.2 CONCLUSIONS AND POLICY RECOMMENDATIONS .....187**  
**5.3 LIMITATIONS & AVENUES FOR FUTURE RESEARCH .....190**  
**REFERENCES CONCLUSION.....196**

## List of tables

Table 1: Definition of resilience from psychological, political science, and sociological perspectives .....	19
Table 2: items to measure social class recognition.....	51
Table 3: items to measure occupational recognition .....	52
Table 4: items to measure occupational recognition with a specific focus on COVID-19 policies.....	53
Table 5: items to measure change in occupational recognition .....	53
Table 6: items to measure megalothymia of the occupational group.....	54
Table 7: items to measure job recognition .....	55
Table 8: items to measure rewards dimension of job recognition .....	55
Table 9: items to measure the change in job recognition .....	55
Table 10: Job megalothymia, assessment of superiority .....	56
Table 11: Job megalothymia perceived recognition .....	57
Table 12: East-West German recognition by Heitmeyer et al. (2013), own translation based on original formulations in German .....	57

## List of figures

Figure 1: The initial stage of the theoretical framework of this dissertation .....	8
Figure 2: Introduction of micro, macro, and meso levels .....	9
Figure 3: Psychological understanding of resilience focuses on emotions at the micro level	12
Figure 4: Vote shares of populist and extremist parties in 31 European countries from 1989 to 2022, weighted by population size. Data source: van Kessel et al. (2023). Illustration by: Rooduijn et al. (2023). .....	13
Figure 5: At the micro level, individuals have emotions and (political) attitudes which aggregate at the macro level and indicate the acceptance of a liberal democracy and, thus, the degree of political resilience .....	16
Figure 6: norms and sanctions influence the aggregation process. The more widespread the norms and the higher the perceived legitimacy, the more cohesive and, thus, resilient societies.....	18
Figure 7: Social identities have an interdependent relationship with individual perceptions and evaluations .....	22
Figure 8: Social identities have a cognitive function in giving individuals orientation and guidance. ....	23
Figure 9: Social identities have an evaluative function.....	25
Figure 10: Social identities have direct effects on emotions, attitudes, and individual resilience through their cognitive and evaluative functions.....	28
Figure 11: Social identities have additional indirect effects on emotions, attitudes, and individual resilience through their impact on 1) perceived fears, 2) self-efficacy and self-esteem, 3) benevolence, and 4) solidarity norms, among other mediation mechanisms. ....	38

## 1 Introduction

This dissertation is the product of a time in which societies around the globe several crises hit societies around the globe within a short period of time. These include the COVID-19 pandemic with its health, social, and economic consequences, the threat to liberal democracies posed by the rise of populist movements, and human-made climate change. Other crises, such as Russia's invasion of Ukraine and the escalation in Gaza between Israel and Hamas, are additional conflicts during this period that have led to the establishment of the term “polycrisis” (Lawrence et al., 2024; Tooze, 2022).

The COVID-19 pandemic provided the impetus for this dissertation. In the winter of 2019 and 2020, the new SARS-CoV-2-Virus in China was discovered in the city of Wuhan (Huang et al., 2020; WHO, 2020) and caused the city's shutdown for 76 days (BBC, 2020; Bloomberg, 2020; China daily, 2020). Within a few weeks, the virus spread globally, and the first outbreaks were reported in Germany at the end of January 2020 (Bayerisches Landesamt Für Gesundheit Und Lebensmittelsicherheit & Robert-Koch-Institut, 2020). While epidemiologists pointed out the potential dangers of the new virus and the COVID-19 disease, the public and politicians realized the severity of the situation with some delay (Betsch et al., 2021). Soon, the infection rates rose exponentially in Germany (Mathieu et al., 2020). The death toll in Italian hospitals, which lacked the equipment to take care of so many infected people, alarmed other countries and the general public (Armocida et al., 2020; New York Times, 2020). By mid-March 2020, Germany began to take measures that affected public life with a seriousness not seen since World War II.

As neither a vaccine to prevent nor drugs to treat an infection with COVID-19 were available at this early stage of the pandemic, state institutions had to resort to non-pharmaceutical infection control measures. One of the main instruments to mitigate the spread of the virus was “social distancing”: this intervention aimed to limit the frequency of contact between people in order to prevent the transmission of the virus from infected individuals to healthy individuals and thus break chains of infection (Johns Hopkins University, 2020). First, in Germany, between March 13 and March 17, public institutions such as kindergartens, schools, universities, and shops had to be closed (tagesschau, 2020). One week later, other contacts in private life and connected with occupations also had to be restricted to contain the spread of the virus (Bundesregierung, 2020). At this point, the question arose about which occupations were necessary to keep the infrastructure. Politicians explicitly regulated which occupational groups

were allowed and even asked to keep working (Bundesministerium der Justiz, 2016; Bundesregierung, 2020).

From an epidemiological point of view, these measures were the only option to limit infection rates. From an ethical and juridical perspective, they therefore had to be taken to protect high-risk populations and lower the burden on the health care infrastructure. Empirical studies subsequently indicated these measures' inhibitory effect on the virus's spread (Glogowsky et al., 2021 for Germany; Murphy et al., 2023 for a systematic review). At the same time, these decisions impacted a broad spectrum within society which sharpened existing and introduced new forms of social inequality. Occupations and labor were particularly affected by the initial mitigation measures. At the one extreme, groups that were labeled "essential" and continued to work faced a higher risk of contracting the new virus and exhaustion due to working extra hours, especially the medical staff at hospitals (Beale et al., 2023; Green & Semple, 2023; Reuter et al., 2022). At the other extreme, occupational groups, such as shop owners and self-employed, were prohibited from working, had to close shops, and faced financial cuts (Holst et al., 2021; Kritikos et al., 2020). Another inequality emerged along the divide: whether to switch to remote work or not. People in those occupations with the privilege to work from home are mostly in higher income sectors, which indicates a deepening of the gap between disadvantaged and advantaged occupational groups (Dingel & Neiman, 2020; Holgersen et al., 2021). At the same time, parents working from home faced the additional challenge of looking after their children as schools and day care institutions were closed. Research has shown that this has often reactivated traditional gender inequalities in care work (Dunatchik et al., 2021; Kalenkoski & Pabilonia, 2022; Zoch et al., 2021). In terms of educational inequalities, children with a low socio-economic background faced more severe educational challenges in times of remote schooling due to limited technical equipment and less ability to help by their parents (Blaskó et al., 2022; Grewenig et al., 2021; Sari et al., 2023).

The restrictions imposed by the infection control measures had economic consequences. In addition to the already industry-related loss of income due to the temporary closures of businesses, further economic consequences included investment freezes, declining consumer behavior, and redundancies (Baker et al., 2020; Cox et al., 2020; McKibbin & Fernando, 2023; Zhang et al., 2020). Even large, international companies depended on state aid to prevent insolvency (De Vito & Gómez, 2020). At the same time, national economies had to cope with the contraction

of their gross domestic product (Gagnon et al., 2023). The fear of a recession was omnipresent and caused uncertainty among actors at all levels (Zhang et al., 2020).

On a global level, infection control measures led to the worldwide disruption of supply chains, which affected the delivery of goods (Moosavi et al., 2022). Most economic difficulties were unevenly distributed across social classes and population groups (Ahmed et al., 2022; Eurofound, 2023). While some groups found themselves in existential difficulties due to the combination of loss of income and rising living costs, other branches of industry benefited from the pandemic because they produced goods in high demand.

Even after the WHO revoked Covid-19's status as a global health emergency on May 5, 2023 (World Health Organization, 2023), the economy was slow to recover from the recession, which can be explained in part by higher commodity prices in Europe following the outbreak of the Russian attack on Ukraine (Boichenko et al., 2023; Ferriani & Gazzani, 2023; International Monetary Fund, 2022). Inflation continues to ensure that the cost of living has risen for people and the risk of poverty has increased (Arndt et al., 2023).

Apart from economic consequences, the mitigation measures also affected the citizen's social networks. As older people were considered disproportionately more vulnerable, these age groups were de facto isolated – either in their own homes or in elderly care arrangements – and suffered from decreasing mental health (Benke et al., 2020; Gaggero et al., 2022). At the other end of the age spectrum, children and young adolescents suffered from increased levels of anxiety, depression, and loneliness as they were prohibited from contact with their peers (Kleine et al., 2023; Naumann et al., 2021; Ravens-Sieberer et al., 2022).

In sum, the pandemic was primarily a health crisis with severe and lasting side effects. The pandemic illustrated how vulnerable the architecture of modern societies is. If one part is out of place or malfunctioning, this affects other parts of the system and may result in a cascade of consequences. The virus and the countermeasures against it changed daily lives and challenged the perceived cohesion of societies (Borkowska & Laurence, 2021). Soon debates began to revolve around the question of proper and adequate measures. This development went hand in hand with another societal crisis already dwelling in the years before the pandemic: the political crisis of liberal democracies.

Beginning in the last decade, populist movements grew to an extent that they could not be ignored anymore. The foundation and success of populist parties, the successful Brexit

campaign, and the election of populist figures in national and state elections were considered systemic attacks on liberal democracies. The framing of a “corrupt elite betraying the pure people” (Mudde, 2004, p. 543) to polarize political and societal debates seemingly gained attraction (Mudde & Rovira Kaltwasser, 2018, 2019).

During the pandemic, the polarization into extreme political camps grew (Jungkunz, 2021). The dissatisfaction with governments decisions and the economic and societal impacts of the crises culminated in protests against governments and the political measures taken. In the German case, these protests unified people from different political backgrounds and with different political intentions. Conspiracy theories blossomed and bonded with coping strategies, leading to an unlikely alliance across different social and political groups from right-wing extremists to voters of the far left united by their distrust of political and scientific institutions (Eichhorn et al., 2022; Grande et al., 2021; Liekefett et al., 2023; Nachtwey et al., 2020).

While politicians and society attempted to get a grip on the health, economic, and political problems caused by the pandemic, another crisis that had only begun manifesting itself in people's consciousness receded into the background. Climate change, global warming, and their consequences for human life were among the most heated debates around the globe before the pandemic (Fisher & Nasrin, 2021). However, the focus completely shifted away from environmental concerns – at least at the early stages of the pandemic. After the initial shock of the pandemic sank in, discussions started about whether the pandemic could be a chance for the climate crisis. Infection mitigation measures benefitted the planet as carbon emission levels decreased sharply due to limited travel (Le Quéré et al., 2020; Zambrano-Monserrate et al., 2020). Debates started whether the policies supporting the economy could be used as a turning point towards strengthening sustainable industries (Engström et al., 2020). As life returned to normal within a relatively short period due to the invention of a vaccine, these considerations were dismissed quickly. Instead, the level of climate change concern is lower than before the pandemic (Beiser-McGrath, 2022; Drews et al., 2022; Gregersen et al., 2022), while 2023 has been the warmest year since meteorologists began collecting reliable data (NASA, 2024).

These three crises – the health crisis of the pandemic, the political crisis, and the ecological crisis – pose significant challenges for humanity. The Oxford dictionary (2023) defines a crisis as "a situation or period characterized by intense difficulty, insecurity, or danger, either in the public sphere or in one's personal life." As a response, actors must demonstrate their problem-

solving and decision-making skills and prove their resilience to master crises. Generally, resilience refers to "the quality of being able to return to a previously good state after problems" (Cambridge dictionary, n.d.). Liberal democracies are highly resilient and overcome crises relatively well compared to other forms of governance, as studies on the COVID-19 pandemic have shown (Aboelnaga et al., 2023; Sorsa & Kivikoski, 2023). Like the general meaning of resilience, the resilience of democracies can be defined as "the ability of a political regime to react to challenges without losing its democratic character" (Merkel & Lührmann, 2021, p. 872). The more widespread democratic attitudes and values are and the lower the degree of polarization within the democracy is, the higher the chance that democracies can handle external shocks (Casal Bértoa & Rama, 2021; Horonziak, 2022; Merkel & Lührmann, 2021). Conversely, crises may increase polarization within democracies (McCoy et al., 2018).

Given the large number of crises in recent times and the scope of their consequences, the question arises as to what strategies individuals, democracies, and societies prepare for the ongoing consequences of the poly-crisis and in the event of new crises that are likely to occur. This dissertation builds on this question and proposes the recognition of social identities as a general mechanism to answer this question. Therefore, this dissertation's overarching research question is: **To what extent does the recognition of social identities serve as a general mechanism to strengthen the resilience of individuals, societies, and democracies?**

Scholars have already proposed that positive social identities are essential in building sufficient self-esteem. Only if the individual's social group within a social category is rated higher than other relevant groups, can individuals maintain a healthy self-worth level (Tajfel & Turner, 1979, 2004). Self-esteem and self-worth, in turn, are potential mechanisms for individuals to enhance resilience (Rutter, 1987). Beyond the individual level, multiple authors have stressed the importance of recognition of social identities in the political agenda. Fukuyama (2019) argues that this is the basis for identity politics, and Taylor has a similar idea in mind when he defines "the politics of multiculturalism" (Taylor, 2020, p. 13). Empirically, first studies support the assumption of an association between (a lack of) recognition and political attitudes (Droste, 2019; Groß, 2021; Steiner et al., 2023). Thus, I argue that the recognition of social identities has effects on the individual level of political attitudes, which aggregate at the group level and are decisive in evaluating liberal democracies as resilient or not.

With this contribution, I intend to expand the current state of research in several regards. To this end, I am pursuing three overarching goals:

First, to the best of my knowledge, this dissertation is the first attempt to theoretically link the recognition theories of various academic disciplines with Social Identity Theory (Tajfel & Turner, 1979, 2004). As a result, I expect to develop a precise analytical framework that enables me to examine the mechanisms of individual, social, and political resilience at micro-, meso-, and macro-levels.

Second, from a methodological point of view, I supplement the previously available instruments for measuring the recognition of social identities with new survey items that explicitly and decidedly capture social class and occupational recognition.

Third, I use three empirical studies to show that the recognition of social identities influences various preconditions of resilience and provide empirical evidence for my theoretical framework. In contrast to earlier studies and theoretical remarks, this work aims to combine a theoretical foundation with specific empirical research in one coherent manner.

My dissertation will be structured as follows: within the theoretical framework (chapter two), I specify the term “resilience” from different theoretical perspectives, explain why social identities are important to people, how humans can keep or gain an intact social identity, and what specific mechanisms are presumably the cause of the relationship between recognition of social identities and political attitudes. The argument is that social recognition enhances resilience, leading to more favorable attitudes towards the political and societal system.

In the third chapter, I describe the data collection and scale development process. The foundation of the empirical part is a study that I conducted together with my colleagues Martin Groß and Volker Lang over the course of the BMAS (Federal Ministry for Work and Social Affairs) and Difis (German Institute for Interdisciplinary Research) funded project “occupational recognition during the Covid-crisis”. Moreover, I will present our new measures for quantifying recognition of social identities.

The empirical part of this dissertation presents three published and peer-reviewed papers as case studies to test whether the recognition of social identities has an impact on political attitudes, influencing them in a positive way to ensure that the political system can counteract the ongoing crises. Each of these papers relates to another crisis: the first paper discusses how occupational recognition can increase compliance with infection mitigation measures. The second paper tests the hypothesis that a lack of recognition leads to populist attitudes. Moreover, in the

third and last paper, I investigate whether the level of recognition of social identities predicts the level of approval of climate change mitigation policies.

In the final chapter, this work closes with concluding thoughts. I will pinpoint the main findings and sum up the lessons learned by empirically testing the argument of social identity recognition as a resilience mechanism. Furthermore, I will discuss the shortcomings of this dissertation that need to be addressed in future analyses. Lastly, I will give an outlook on what further gaps future science may need to fill and how to do so.

## 2 Theoretical framework

I divide the theoretical framework of my dissertation into six subchapters. In doing so, I aim to gradually derive how resilience can be strengthened through the recognition of social identities, successfully handling the three major crises (the COVID-19 pandemic, rise of populism<sup>1</sup>, and climate change) depicted in the introduction. Figure 1 shows the starting point: I assume the three crises require reactions to develop resilience. In the following subchapter (2.1), I first examine what resilience means from various scientific perspectives. Then, in chapter 2.2, I explain social identities and their importance due to their cognitive (2.2.1) and evaluative function (2.2.2). In chapter 2.3, I explain how social identities and recognition are related. Chapter 2.4 discusses the mechanisms that, according to my argument, connect the recognition of social identities with increased resilience. I identify four mechanisms: the reduction of anxiety (2.4.1), the increase in self-esteem and self-efficacy (2.4.2), the signaling of benevolence (2.4.3), and the activation of solidarity and reciprocity norms (2.4.4). In a final step, I explain which social identities I use for my empirical analyses and for what reasons (2.5). Finally, I summarize the essential argumentation structure of the theoretical framework (2.6).

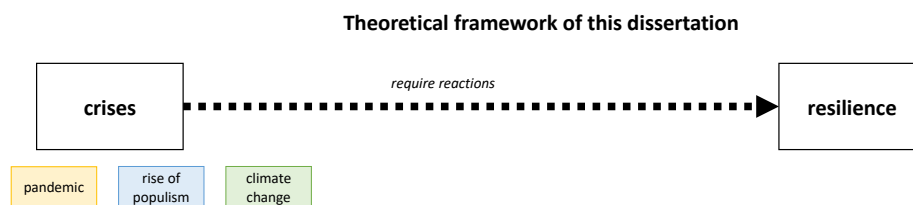


Figure 1: The initial stage of the theoretical framework of this dissertation

### 2.1 What is resilience?

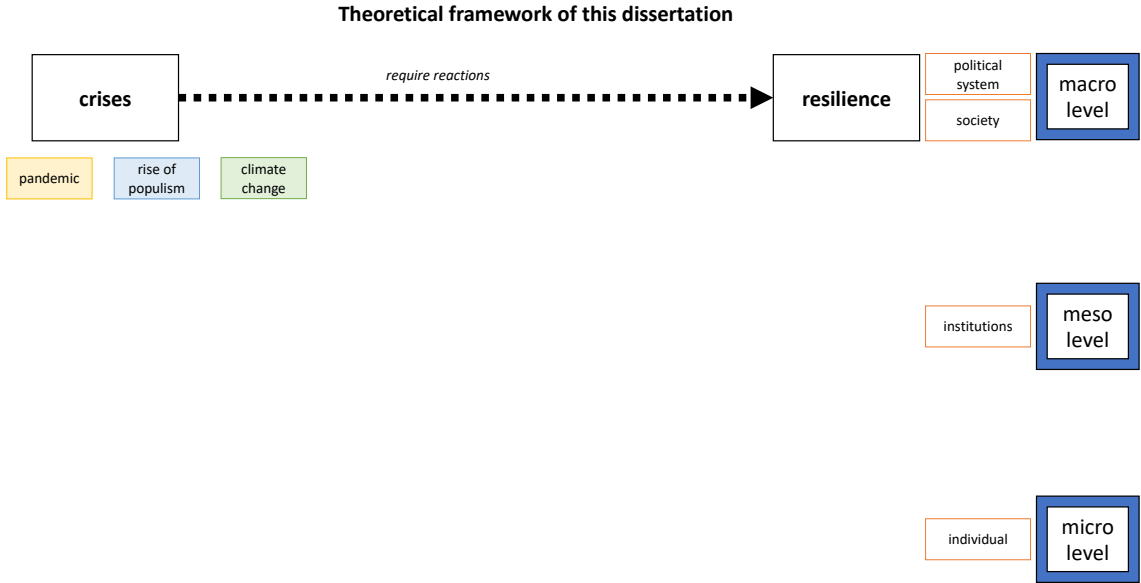
In its core understanding, resilience was a term related to ecology (Holling, 1973). Since the 1980s, other scientific disciplines have discovered and borrowed this concept for their figurations. For this work, I specify resilience within the framework of three elementary sciences for this dissertation: 1) psychology, 2) political science, and 3) sociology. Each of these scientific disciplines focuses on *who* can or should be resilient, which introduces different actors as potential subjects of investigation. At the same time, these perspectives also allow for a distinction between *different levels* of analysis. Based on the classic Coleman (1990) scheme, introducing

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<sup>1</sup> The rise of populism could also be interpreted as a symptom of a deeper problem—for example, the threat to liberal democracies or fundamental dissatisfaction with the political system (S. Berman, 2019). While this argument is understandable, I argue it underestimates the danger posed by populist actors, especially those in government (Cole & Schofer, 2024; Funke et al., 2023). I therefore assume that the rise of populism is more than just a symptom; it is a political crisis in its own right.

a micro, macro, and intermediate meso level creates an analytical framework that substitutes global crises and resilience with clearly operationalizable constructs and thus enables an empirical investigation.

Resilience has different meanings depending on the perspective of the scientific discipline and the object of interest. The psychological perspective is particularly interested in the individual at the micro level. In looking at the macro level, the political science perspective mainly examines democratic societies as subject to a specific form of government in terms of their resilience. The sociological perspective considers resilience at the micro (individual) and macro (society) levels by connecting the two levels and introducing a meso level operating through institutions. Institutions are "social entities that determine what needs to be done on a permanent basis. [...] By limiting the arbitrariness and capriciousness of social action, institutions exert a normative effect; they define duties. In doing so, they perform a dual function: on the one hand, for the people whose needs they shape, and on the other, for society, whose structures and existence they secure." (Schäfers, 2000, p. 148 own translation AB) In the following, I explain each perspective's understanding of resilience.



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Figure 2: Introduction of micro, macro, and meso levels

2.1.1 Psychological perspective: individual resilience

The psychological perspective on resilience focuses on the individual and their capabilities of responding to stress and adversity in a positive manner (American Psychological Association, n.d.; Rutter, 1987). I take the definition of the American Psychological Association (APA) as the baseline according to which **“resilience is the process and outcome of successfully**

**adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands”** (American Psychological Association, n.d.) when I utilize the term “**individual resilience**”. Features that are included in this definition and shared by most other definitions are: a) response to challenge/stress/external demands/adversity/risks; b) mental, emotional, social, and/or cultural resources as protective factors to counter stress (Stainton et al., 2019).

The consensus in current psychological literature assumes that resilience can differ intra-individually and time-variantly as various types of problems and changing circumstances may require different strategies and abilities of the individual to master them (Kim-Cohen & Turkewitz, 2012; Rutter, 1987, 2012). This means that resilience is a multi-faceted, complex *process* of thoughts, behavior, and actions that can be learned and adapted through time and experiences

(Leys et al., 2020; Malhi et al., 2019; Masten & Cicchetti, 2016). Only this understanding of resilience as a *dynamic process* makes it meaningful to examine the influence of recognition on resilience in the context of this dissertation. After all, if resilience were simply a trait – a common interpretation in the past (Flach, 1980; Garnezy, 1993) – shaped by socialization and can hardly be influenced afterwards, attempts at intervention would be doomed to failure.

Together with the attempts to define the concept of individual resilience, a vast part of research looks at the roots and causes of individual resilience (Hiebel et al., 2021; Leys et al., 2020; Malhi et al., 2019; Southwick et al., 2014; Ungar & Theron, 2020). Several authors (Friborg et al., 2003; Garnezy, 1993; Rutter, 1987) propose a three-part classification to categorize the psycho-social influences of resilience: 1) psychological attributes; 2) family structures; 3) external support. As I cannot relate to all the potential mechanisms discussed in the literature, I focus on the psycho-social factors that are most relevant for this work: 1) *psychological attributes* and 2) *external support*.<sup>2</sup>

Even among *psychological attributes*, the variety of protective factors discussed is so great that I only highlight two attributes. These are the 1) *ability to acquire and apply coping strategies* and the 2) *level of self-esteem and self-efficacy*. Lazarus and Folkman (1984) define *coping* as a “person’s constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources”.

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<sup>2</sup> I have omitted category 2) of the family structure. The great interest in the family structure within the psychological literature stems from the fact that adolescents and children with mental illnesses were often studied to investigate possible protective factors and potential interventions to improve the mental health of patients. This differs significantly from the research focus of my dissertation.

Coping strategies have two primary functions: the *regulation of emotions* in stressful situations (so-called “emotion-focused coping”) and intervening in the situation to *relieve distress* (“problem-focused coping”).

*Emotion-focused strategies* aim at altering the perception of a given stressful situation (Lazarus & Folkman, 1984). Individuals try to practice self-control by suppressing impulsive behavior and attempting to (re-)gain control over their feelings. Once the situation is re-interpreted as manageable, the solution to the problem presents itself as a strategic choice about the right option for individuals to control the situation. In this respect, strengthening the ability to re-frame and re-interpret a dangerous situation is one way of increasing resilience (Kalisch et al., 2015; Troy & Mauss, 2011). Another strategy that alters the perception of the situation can be *positive reappraisal* (Folkman et al., 1986, p. 995). In this case, individuals categorize a stressful situation as a challenge rather than a threat. They encounter the environment as a chance for personal growth or a test of their mental or physical abilities. So instead of pronouncing the fear of losing or being in danger, they envision a positive outcome as an achievement.

In differentiating between coping strategies, Lazarus and Folkman (1984) define *problem-focused* coping strategies, which aim at actively solving the problem. In these cases, individuals analyze a given situation, identify the needs required to cope with the situation, and then procure them with the available resources. The success of problem-focused coping strategies depends on contextual factors, the feasibility of such strategies, and the feedback in the situation, which is subsumed under the term “regulatory flexibility” (Bonanno & Burton, 2013, p. 591).

Coping strategies have another important effect on individuals: if individuals have a strategy with which they successfully adapt to a stressful situation, this can increase their perceived *self-efficacy*. Experiencing self-efficacy should, in turn, also promote individual resilience (Rutter, 1987).

Self-efficacy and self-esteem are identified in the literature as important influences on resilience (Friborg et al., 2003; Rutter, 1987; Stainton et al., 2019). For instance, Rutter (1987) notes: “[...] it is protective to have a well-established feeling of one’s own worth as a person together with the confidence and conviction that one can cope successfully with life’s challenges” (Rutter, 1987, p. 327).

The availability of *external resources* is another source of resilience (Iacoviello & Charney, 2014; Southwick et al., 2016; Stainton et al., 2019). External (or social) resources include crisis support through receiving practical, financial, and emotional help. All these forms of social support help individuals to adapt better to crises and emerge from them more resilient

(Schetsche et al., 2023). The more resources that are available, the higher the chances that an individual can respond to adversity in a resilient manner. In some cases, it may even be sufficient for the person to mistakenly believe that the resources are potentially available as a safety net, even if they are unattainable or do not exist at all.

To summarize, resilience, in the most general meaning, refers to individuals finding an adaptive way of dealing with a stressor. This usually means that individuals need to demonstrate emotional and behavioral flexibility in dealing with external or internal demands like stress, trauma, or threats. The term resilience is not uniformly defined in the psychological literature, although the process-oriented approach has recently gained broader acceptance. I define resilience as a dynamic process for the remainder of this dissertation. The extent of resilience depends on various factors, such as 1) psychological attributes – like the capability of coping strategies and the degree of self-efficacy – and 2) the availability of external resources. Coping strategies aim to make mental and behavioral adaptations to the stressful situation. These can either focus on 1) circumscribing and controlling emotions or 2) on a solution-oriented approach, thus fulfilling two functions. It can therefore be concluded that the more coping strategies individuals master, the higher their resilience is. Figure 3 incorporates these insights into the theoretical framework of this dissertation: individual resilience is located at the micro level and is, among other factors, determined by emotions, psychological attributes, and the availability of external resources.

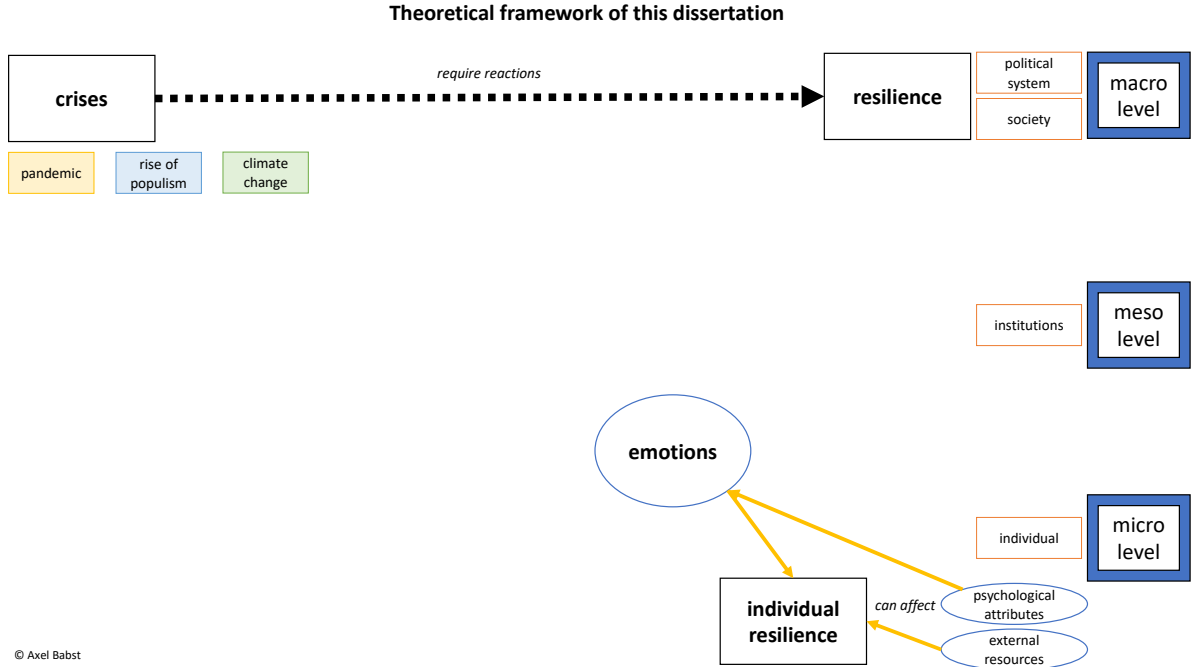


Figure 3: Psychological understanding of resilience focuses on emotions at the micro level

2.1.2 Political science perspective: democratic resilience

In focusing on the macro level, political scientists refer to another definition of resilience when analyzing the resilience of democracies. More than 30 years ago, Fukuyama postulated that liberal democracies would be the “final form of human government” (Fukuyama, 1989, p. 4) from an ideological point of view. The assumption is that liberal democracies are a good that is the undisputed ideal in modern states. Liberal democracies revolve around institutional arrangements and follow the principle of “checks and balances” (Merkel & Lührmann, 2021, p. 870): those in power are held accountable by those in opposition and by institutions.

Contrary to Fukuyama’s (1989) assumption, scholars nowadays argue that democracies are under scrutiny due to rising tendencies of illiberalism, populism, and authoritarianism, which are implemented as the other pole on a continuum (Merkel & Lührmann, 2021). The recent increase in autocratization is not a new phenomenon but follows curvilinear trends as we now witness the third wave of autocratization (Merkel & Lührmann, 2021). The “Popu-list” created by Rooduijn et al. (2023; Van Kessel et al., 2023) illustrates this development by displaying the increase in populism as one component of the third wave of autocratization.

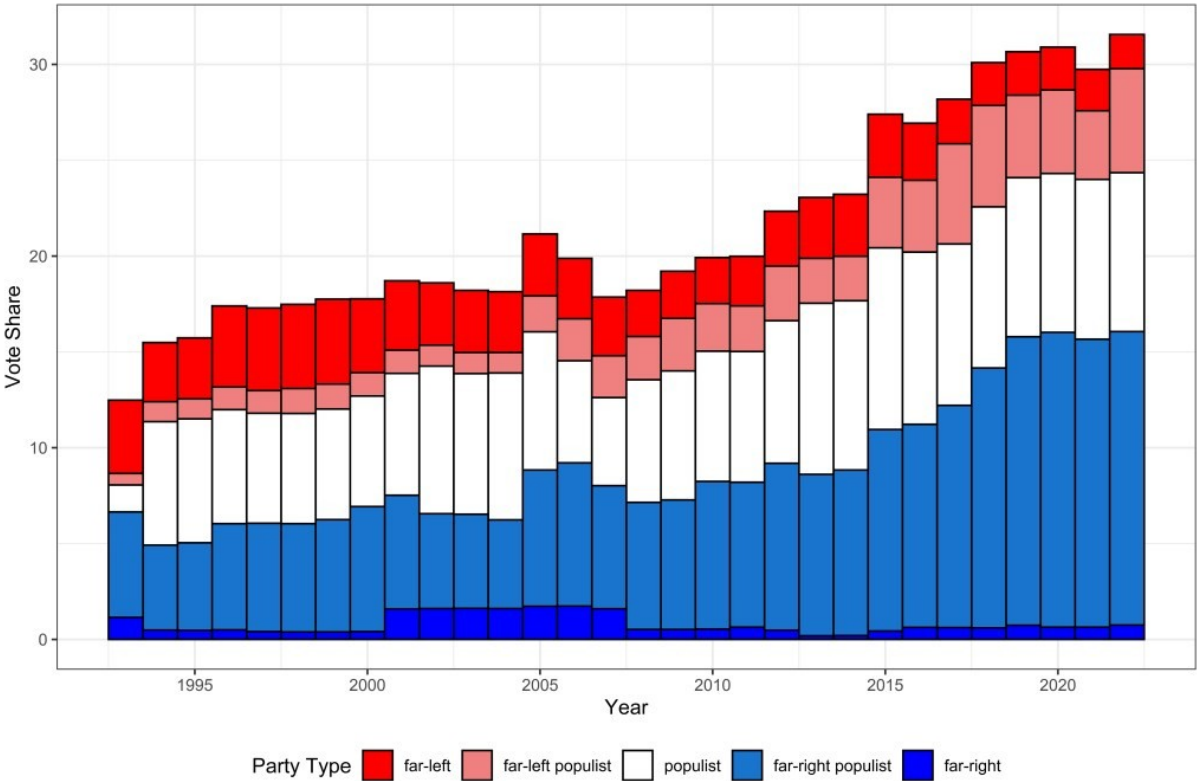


Figure 4: Vote shares of populist and extremist parties in 31 European countries from 1989 to 2022, weighted by population size. Data source: van Kessel et al. (2023). Illustration by: Rooduijn et al. (2023).

Figure 4 is based on this data set and illustrates that the vote shares of far-right populist parties and, to some degree, the vote shares of far-left populist parties have increased significantly in 31 European countries between 1989 and 2022. In 1989, roughly 12 percent of votes were given

to parties that are considered populist or extremist. This proportion has grown by almost 20 percentage points over 33 years and hit a new record of almost one-third of voters choosing populist or extremist parties in 2022.

This rise of populist and extremist parties is challenging the ideal of liberal democracy worldwide. It has inspired a wealth of research that understands and studies resilience as a “strategy to manage identified threats and specific crises to the democratic system” (Holloway & Manwaring, 2023, p. 78). In line with this research, *democratic resilience* is defined as the **“ability of a democratic regime to prevent or to react to challenges without losing its democratic character”** (Merkel & Lührmann, 2021, p. 872).

More specifically, Merkel and Lührmann (2021) point out three abilities of resilient democracies that are constitutive when facing challenges and stem from a functionalist perspective of the institutional arrangements: 1) stability against change, 2) adaptability through internal changes, and 3) the ability to recover from initial damage and destruction. It is important to note that the attributes will likely influence each other and are not mutually exclusive. Maintaining state stability when confronted with change and populist movements does not necessarily mean that democracy does not change. In fact, the ability to react to these developments by establishing new legislative instruments, installing different political actors, or other institutional arrangements may be essential to provide stability.

Boese et al. (2021) propose a distinction between different forms of democratic resilience, which specify when the resilient reaction occurs. *Onset resilience* describes the ability of liberal democracies to deal with autocratic tendencies and prevent a shift towards the autocratic end of the continuum. *Breakdown resilience* encompasses the ability of liberal democracies to reverse a shift towards the autocratic pole that has already taken place.

On a conceptual level, Merkel and Lührmann (2021) propose four dimensions that influence democratic resilience.

First, the structural dimension embodies the *associations between the three pillars of democracy* (legislative, executive, and judiciary; dimension one). Second, it is important to consider *actors within the political system* (dimension two) – who can use their gatekeeping potential to prevent an autocratic persona from reaching important political ranks – and third, the *people of a democracy* (dimension three). The more widespread democratic values are, the higher the degree of democratic resilience is (Merkel & Lührmann, 2021). Lastly, Merkel and Lührmann (2021) argue that *highly polarized and unequal democracies may be less resilient* as the political elites may feel less obliged to comply with democratic principles (dimension four). This is especially important from the political perspective as populist movements, for instance, try to

capitalize on the disparity between the elite and the people by pronouncing the “antagonist” (Mudde, 2004, p. 543) relationship between a corrupt elite and the honest people, depicting themselves as the saviors of the citizens.

In their literature review, Holloway and Manwaring (2023) identify various potential causes for the degree of democratic resilience. The most widely discussed is the degree to which political cultures, norms, and attitudes towards democracy are embedded in democracies, corresponding to dimension three of Merkel and Lührmann (2021). However, upon closer examination, the authors conclude that many of the studies are based on an understanding of resilience that is overly simplistic and, in fact, only interprets well-known indicators from political science (such as democratic satisfaction, institutional trust, etc.) as resilience (Holloway & Manwaring, 2023). As an explicit exception, Holloway and Manwaring (2023) mention the study by Boese et al. (2021), which works with a clear definition of Merkel and Lührmann (2021) and, building on this, provides a precise operationalization of democratic resilience. Boese et al. (2021) find that strong judiciary and democratic institutions in the past were the most important factors for resilient outcomes (dimension one of Merkel and Lührmann (2021)).

In conclusion, from a political science perspective, resilience is clearly defined, even though this definition has only been established recently. It is the ability of a democratic regime to overcome challenges without losing its democratic character. Resilient regimes are characterized by three capabilities: 1) stability in the face of change, 2) adaptability through internal change, and 3) overcoming initial damage. 1) connections between legislative, executive, and judicative powers, 2) the role of gatekeepers in the political system, 3) the people’s attitudes in the democracy, and 4) the degree of polarization/inequality can influence the resilience of democracies. To date, t only a few empirical studies have examined the possible causes of democratic resilience, using a theoretically sound definition of resilience and operationalizing it accordingly (Holloway & Manwaring, 2023). Based on this summary, I include (political) attitudes– dimension three of Merkel and Lührmann (2021) – as an essential component in influencing resilience at the micro level. The prevalence of certain attitudes can influence the degree of democratic resilience at the macro level (see Figure 5).

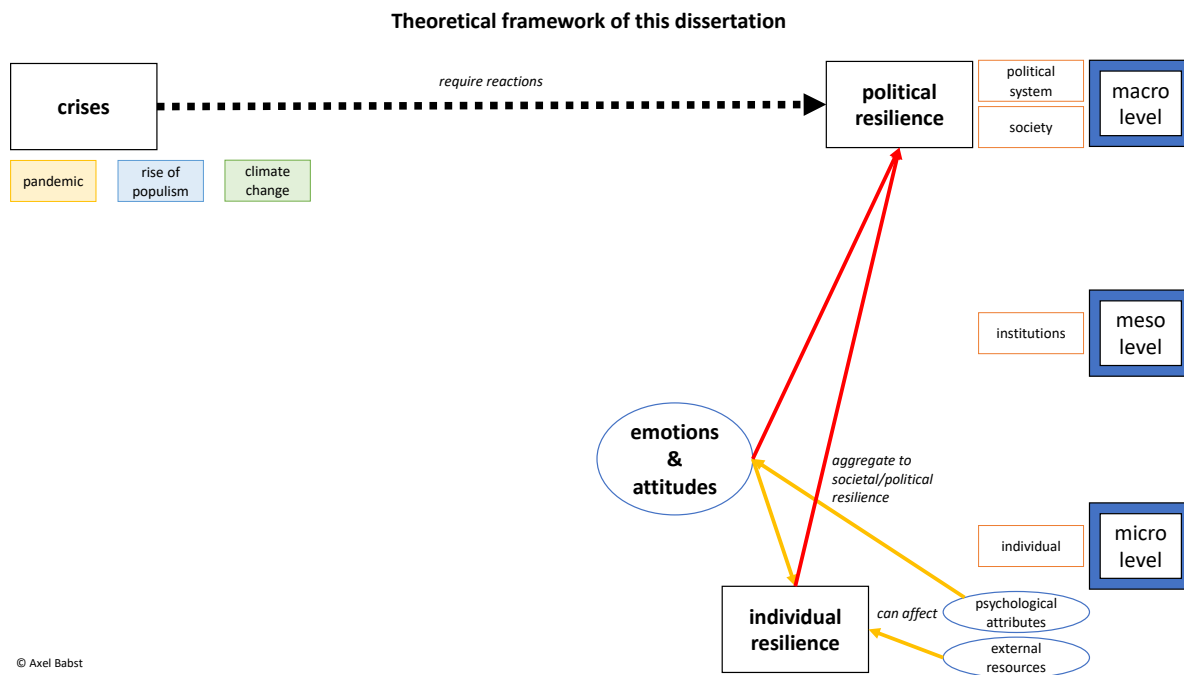


Figure 5: At the micro level, individuals have emotions and (political) attitudes which aggregate at the macro level and indicate the acceptance of a liberal democracy and, thus, the degree of political resilience

### 2.1.3 Sociological perspective: societal resilience

Until the last decade, resilience has been rarely the subject of empirical sociological studies (Olsson et al., 2015). Sociologists look at the term theoretically and have shown an increased interest in the concept in recent years (Endreß, 2022). In particular, the question of resilient communities and societies has become the focus of researchers in view of the increasing complexity and multidimensionality of relationships in modern societies (Folke, 2016; Kölbel & Erckrath, 2023). Blum et al. (2016) define resilience in sociological terms as the “**ability of a (social) system or a (social) unit [...] to withstand threats or challenges that threaten its existence or enhance its existence in such a self-transforming way that core components of its identity are not abandoned**” (2016, p. 152 own translation AB). Compared to the aforementioned definitions of resilience from psychology and political sciences, the sociological perspective shifts focus by introducing the *identity of social systems* as the core characteristic resilient societies maintain regardless of the transformation process. Endreß (2022) gives a similar description of the manifold research interests of sociological analyses on resilience: “Strategies, resources and framework conditions are examined that can potentially ensure the survival or preservation of individual and/or social 'systems' in the event of 'external' threats (such as natural disasters or social damage) in conjunction with 'internal' vulnerabilities - or even enable them to 'grow' in the face of the challenge.” (Endreß, 2022, p. 1 own translation AB).

Blum et al. (2016) present four perspectives on the sociological approach to resilience and thus illustrate the range of possible focal points of analysis. In a first line of thought called “sociodiagnostic localization” (Blum et al., 2016, p. 154), they subsume the theory of a reflexive modernity illustrated by Beck and governmentality in the sense of Foucault. This approach aims to research the special nature of resilience during social change. Secondly, sociologists may analyze the genealogy of the concept from the perspective of the sociology of knowledge. Thirdly, resilience can serve as a tool for power analyses, as this concept can be used to legitimize or criticize social orders. Fourthly and finally, there may be an interest in examining the usefulness of resilience as a sociological category. For this work, the first and fourth perspectives are of greater interest.

According to Blum et al. (2016), the “sociodiagnostic localization” perspective understands resilience as a changed understanding of how to deal with risks and uncertainty. In the last century, an understanding of social progress prevailed according to which it was merely a question of time before risks could be controlled. However, environmental disasters (e.g., Chernobyl 1986) have shown that this understanding of progress is utopian. Sociological analyses, therefore, use the principle of resilience to describe how societies deal with risks and the awareness of the unavoidable vulnerability. Resilience thus involves a paradigm shift that heralds a new way of dealing with uncertainty. In the context of this work, this understanding of resilience is relevant insofar as it analyses how individuals deal with emerging uncertainties and crises (e.g. the COVID-19 pandemic, populism, and climate change).

Resilience as an analytical category is concerned with how to “maintain a core not despite, but through transformation” (Blum et al., 2016, p. 171). In its analysis of societal resilience, sociology uses a tripartite division of factors that originally stems from socio-ecological research: According to this differentiation, the 1) coping, 2) adaptation, and 3) transformation potentials determine how resilient societies and institutions are (Folke et al., 2010). Coping potentials include the capacities necessary to deal with disruptive events in the short term to restore the status quo. In contrast, adaptation potentials provide resources for social units to adapt to a new context in the medium or long term. Finally, social units apply transformation potentials for change in the long term in order to secure their existence and develop new potentials (Blum et al., 2016; Folke et al., 2010).

Only a few papers define the exact nature of societal resilience and analyze its preconditions (Busic-Sontic & Schubert, 2023; Keck & Sakdapolrak, 2013; Olsson et al., 2015). However, one could argue that sociology is more interested in another concept closely intertwined with resilience: social cohesion. Especially in times of crisis, authors frequently refer to social

cohesion as a prerequisite or indicator (Busic-Sontic & Schubert, 2023; Jewett et al., 2021; Ludin et al., 2019; Rodin, 2014; Sobhaninia, 2024) for the resilience of societies. According to this string of literature, social cohesion is important for communities and societies to manage through and recover from crises. For example, Sobhaninia (2024, p. 519) states: “Hence, social cohesion is an essential resource for predisaster preparation planning as well as postdisaster recovery planning”. Although there is a broad consensus on the important role of social cohesion as a prerequisite for social resilience, Fonseca et al. (2019) illustrate that the definition of social cohesion varies in the literature. For my analyses, I refer to Durkheim's (2019) definition, which states that the absence of conflict through establishing norms, values, and sanctions fulfills the social condition of social cohesion.

In short, the sociological perspective understands resilience as the ability of a social system or social unit to maintain itself without losing its own identity. Within sociological analysis, there are four different approaches, of which sociodiagnostic localization and the understanding of resilience as a social category are relevant to this dissertation. Sociodiagnostic localization examines the extent to which individuals deal with risks. Resilience as a social category analyzes the extent to which social units or systems have coping, adaptation, and transformation potentials. In empirically oriented literature, the difficulty arises that social cohesion has been used both as an indicator and a cause of resilience. For my theoretical framework, I assume that social cohesion in terms of norms, values, and sanctions—which are set by institutions—influences societal resilience and the aggregate attitudes of citizens (see Figure 6).

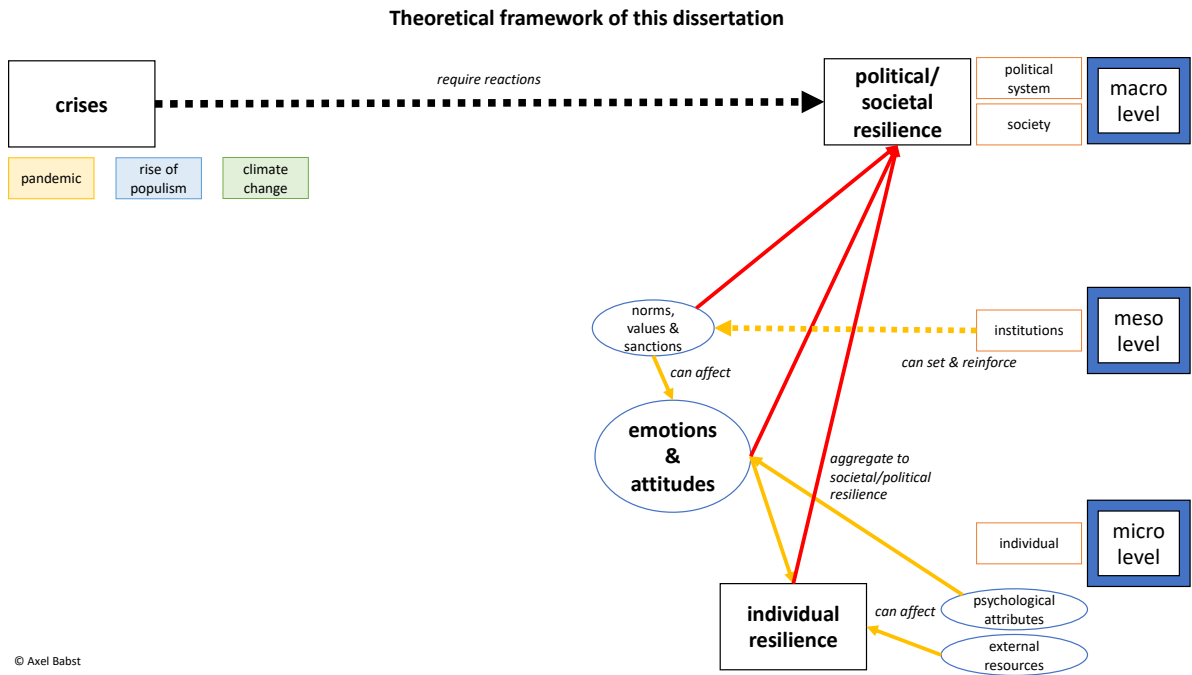


Figure 6: norms and sanctions influence the aggregation process. The more widespread the norms and the higher the perceived legitimacy, the more cohesive and, thus, resilient societies.

### 2.1.4 Summary: What is resilience?

In the last three subsections, I looked at the definition of resilience from the perspective of three scientific disciplines. In a final step, I summarize the common core of all perspectives and highlight the differences. For this purpose, I also refer to the overview of resilience concepts in Table 1.

	<b>psychological perspective</b> (individual resilience)	<b>political science perspective</b> (political resilience)	<b>sociological perspective</b> (societal resilience)
<b>definition</b>	resilience is the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands (APA, n.d.)	ability of a democratic regime to prevent or to react to challenges without losing its democratic character (Merkel & Lührmann, 2021, p.872)	ability of a (social) system or a (social) unit [...] to withstand threats or challenges that threaten its existence or enhance its existence in such a self-transforming way that core components of its identity are not abandoned (Blum et al. 2016, p. 152, own translation)
<b>research subject</b>	individuals	liberal democracies	individuals/communities and/or societies
<b>analytical sphere</b>	micro level	macro level	micro/meso/macro level
<b>key characteristics of resilience</b>	<input type="checkbox"/> adaptation to trauma, threats, and stress <input type="checkbox"/> dynamic process (intra-individual changes over time)	<input type="checkbox"/> stability against change <input type="checkbox"/> adaptability through internal changes <input type="checkbox"/> ability to recover from initial damage and destruction	<input type="checkbox"/> ability of social system to withstand threats or existential challenges <input type="checkbox"/> maintain identity of social system regardless of transformation
<b>causes and influences</b>	<input type="checkbox"/> perception and world views <input type="checkbox"/> availability of social resources <input type="checkbox"/> coping strategies: emotion-focused & problem-focused	<input type="checkbox"/> association between legislative/executive/judicative <input type="checkbox"/> gatekeepers in the political system <input type="checkbox"/> attitudes of people in democracy <input type="checkbox"/> polarization and/or inequality	<input type="checkbox"/> coping potential <input type="checkbox"/> adaptation potential <input type="checkbox"/> transformation potential <input type="checkbox"/> social cohesion (diffusion of norms, values, and sanctions)

Table 1: Definition of resilience from psychological, political science, and sociological perspectives

All perspectives have in common that they define resilience as a process in which a threat or challenge disrupts an existing status quo, at the end of which the threat or challenge is successfully overcome. Definitions from political science and sociology link the success of this process to the condition that the democratic character (political science) or the subject's identity (sociology) is preserved. While all three perspectives agree that resilience does not necessarily mean a return to the status quo ex ante, they emphasize adaptability/adaptation. From a political science perspective, the tension between stability and change and adaptability through change becomes apparent. Depending on the context, developing a new ability may appear more desirable and conducive to resilience than maintaining the status quo.

Psychology and sociology understand coping strategies or potentials as essential predictors of whether the subject of investigation is resilient (Blum et al., 2016; Garmezy, 1993; Rutter, 1987). At the same time, coping strategies reflect the understanding of resilience as a process, since, depending on the research interest, the application of coping strategies can already be described as resilience. The psychological and political science perspectives identify concepts that can be empirically operationalized as possible causes or facilitating factors for resilience. Psychological research finds that individual perceptions and the degree of available social resources influence the resilience of individuals (Friborg et al., 2003; Garmezy, 1993; Rutter, 1987). Political science explanations contain a broader scope of actors and structures in their

analyses, thus increasing the number of potential influences on resilience (Merkel & Lührmann, 2021). Sociological literature names coping, adaptation, and transformation potentials as determinants of the resilience of societies or communities (Blum et al., 2016). The concept of social cohesion is more commonly used in the context of empirical sociological analyses. However, hardly any work examines the relationship between these two concepts (Ludin et al., 2019). Social cohesion is sometimes interpreted as a measure of resilience and in other places as a determinant of the resilience of societies (Busic-Sontic & Schubert, 2023; Jewett et al., 2021; Ludin et al., 2019; Rodin, 2014; Sobhaninia, 2024).

The subchapters in 2.1 aimed to discuss the concept of resilience from a theoretical perspective, as the overarching research interest of this dissertation is to determine which factors can promote resilience in a societal context. I have laid a terminological foundation allowing me to describe *what* I want to investigate. In the following subsections, I would now like to discuss *how* the phenomenon under investigation—resilience—could be strengthened.

## 2.2 What are (positive) social identities?

Building on the previous chapter, in which I elaborated on the varying definitions of resilience, I would like to introduce a fundamental mechanism for promoting resilience. This is the **recognition of social identities**. The core idea is that the recognition of social identities is necessary for building positive social identities, which are essential for human well-being. If there is a lack of subjectively perceived recognition, individuals are more likely to adopt attitudes that undermine the resilience of society. Conversely, strengthening social identities can be a mechanism for enhancing the society's resilience. Before I derive this thesis in the following subsections, I would first like to explain social identities, why they are essential to human beings, and how a social identity can be positive.

First of all, social identities differ from personal identities. Building on Sigmund Freud's seminal definition derived from the psychoanalytical school of thought, Erik Erikson (1968) reformulated that the essence of personal identities results from experiences and the maturing process during adolescence. The classic definition of social identity was built on work by pioneer social psychologist Henri Tajfel. His student John C. Turner expanded this understanding after Tajfel's death. Initially, the Social Identity Theory (SIT) was designed to disentangle the causes of intergroup conflicts. At the time being, previous work had already identified deferring social interests as the root of conflict between groups within societies. Tajfel and Turner (2004) emphasized the in-group identification that arises from contrast with other groups. In multiple experimental settings, they demonstrated that social categorization, even the arbitrary assignment to one group, is enough to provoke an in-group bias and out-group discrimination (Tajfel

& Turner, 2004, p. 281). Through their in-group bias, social identities establish norms that influence the member's individual actions, behavior, and attitudes (Hornsey, 2008).

Tajfel and Turner (2004) use a minimal definition of social identities that centers around the cognitive self-characterization of the individual and the categorization of said individual by others into a particular group. Tajfel and Turner emphasize that self-categorization predominates in this process and that individuals must inevitably have incorporated group membership into their self-concept: "It is not enough that the others define them as a group, although consensual definitions by others can become, in the long run, one of the most powerful causal factors determining a group's self-definition" (Tajfel & Turner, 2004, p. 284). A group, in turn, is considered "as a collection of individuals who perceive themselves to be members of the same social category, share some emotional involvement in this common definition of themselves, and achieve some degree of social consensus about the evaluation of their group and of their membership in it" (Tajfel & Turner, 2004, p. 283).

Turner et al. (1987) supplement these assumptions with ideas from Self Categorization Theory (SCT). They point out that self-categorization into social groups is very context-specific depending on the salience of the group membership. Hornsey (2008, p. 208) notes that "categories may be fleetingly accessible if they are primed in the situation, or they may be chronically accessible if frequently activated or if people are motivated to use them". Social identities have in common that they center around a self-categorization that focuses less on individual persons and their characteristics, but instead views individuals as interchangeable representatives of a social category (Turner et al., 1994). The similarities between members are emphasized to distinguish them from the differences between members of other social groups. Turner et al. (1994) provide the example that men begin to speak of "we" and thus disregard all differences from other men to distinguish themselves from the group of women. Thus, there is a reciprocal relationship between social identities and their members, in which the identities are strengthened by the self-categorization of the members, who must first perceive and identify themselves as members of a particular social group. In turn, membership of a social group determines how individuals perceive themselves and which characteristics come to the fore (see Figure 7).

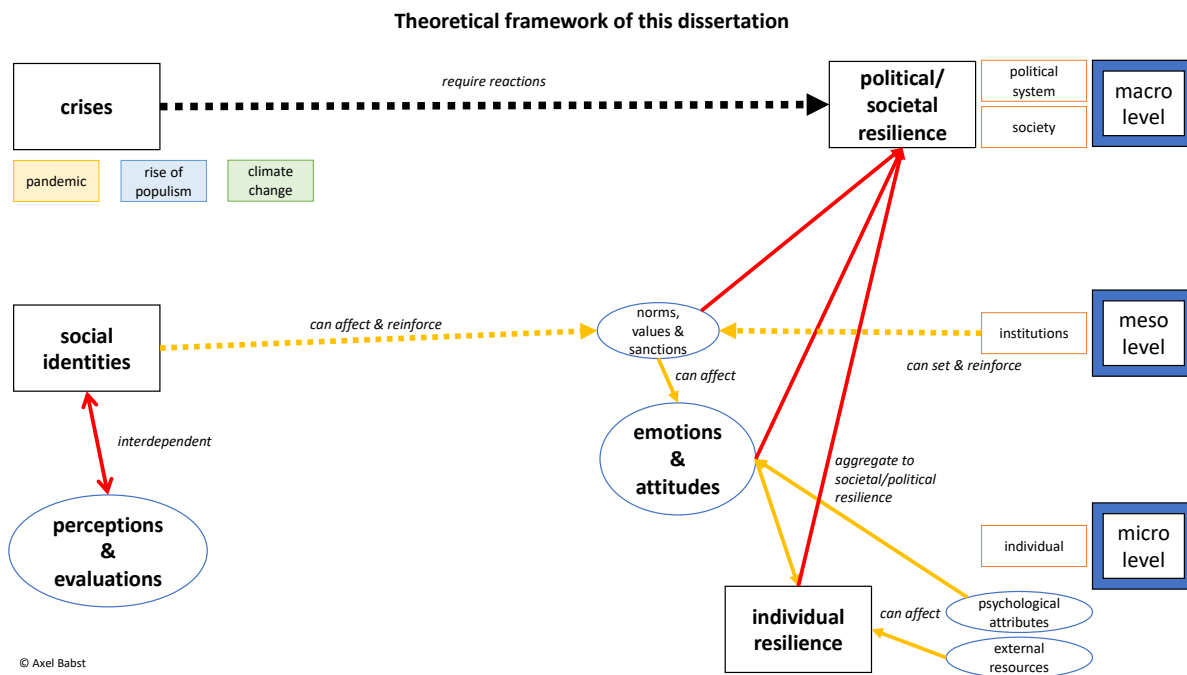


Figure 7: Social identities have an interdependent relationship with individual perceptions and evaluations

Given this strong effect on individuals and their perception of themselves, the question arises about what functions a social identity has for the individual. Social identities offer vital support for people in two forms: social identities have 1) a *cognitive function* and 2) an *evaluative function*. I will examine these two functions in the following two sub-chapters.

### 2.2.1 Cognitive function

The cognitive function of social identities can be best described as an “orientation for self-reference” (Tajfel & Turner, 2004, p. 283). Group memberships guide individuals daily by providing information about their social position or place in a societal system. To assess this social position, groups and their members need to draw comparisons with other groups and members of these further groups. Therefore, the identity is relational as it depends on the standing and the evaluation of other groups and members of these other groups (Tajfel & Turner, 2004, p. 283).

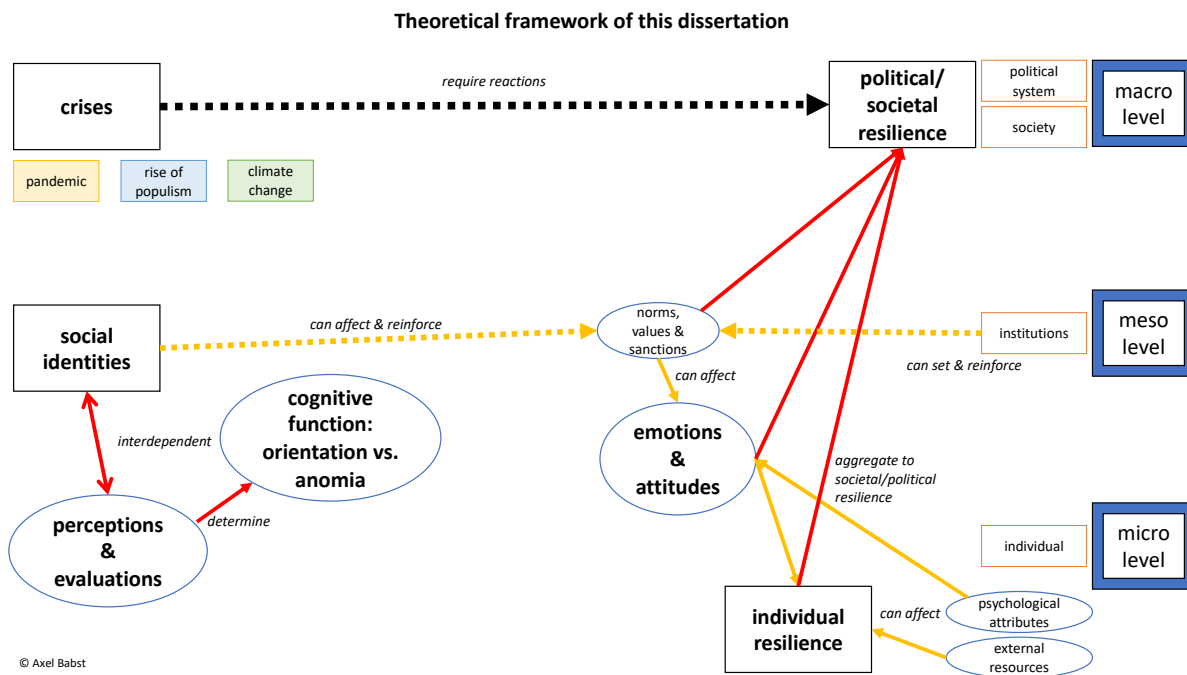


Figure 8: Social identities have a cognitive function in giving individuals orientation and guidance.

From a sociological perspective, Mead emphasizes the importance of social embedding and the social aspect in identity formation. He formulates the necessary condition for the individual to develop a complete identity: "in so far as he [the individual, A.B.] accepts the actions of the organized social group to which he belongs in relation to the organized, collaborative social activities with which that group is concerned, he can develop a complete identity (...)" (Mead, 2020, p. 197). To illustrate this, he uses the example of a party member who embodies this party's values and positions and represents them in social contexts where non-members also appear.

Mead emphasizes the social aspect of identities by dividing a complete identity into an I-part and a Me-part (2020, p. 216 ff). During socialization, children learn different social roles through play and thus develop a sense of self. However, it is only when they accept the experiences of these social roles, open up to them, and adopt specific roles into their self-concept that the Me-part, which constitutes a complete social identity, unfolds. The I-part reacts to the "gestures" (Mead, 2020, p. 222) of the organized community and adopts them, creating the Me-part.

### 2.2.2 Evaluative function

Based on the definition of social identities, Tajfel and Turner (2004) conclude that categorization of social identities impacts people's intentions and behavior. They assume that individuals have an intrinsic need for a positive self-concept that requires maintaining or enhancing their

self-esteem (2004, p. 283). This aligns with Honneth's (1992) assumption that people have a universal need for social recognition. Second, they state that humans assign negative and positive values to groups and their members, influencing the (self)-evaluation of social identities. Therefore, an individual's social identity varies positively or negatively, depending on the societal value attribution. Third, the evaluation of one's own in-group is then influenced by the comparison with the value attributions of other groups (Tajfel & Turner, 2004, p. 283).

The authors derive further assumptions that relate more specifically to social identities. Individuals are keen to have positive social identities (1), which can only be attained through winning the comparison with relevant out-groups (2). If the comparison is negative, people are offered two strategies (3): they can strive to upgrade their current group membership or try to leave their current group and join a more positively valued group (Tajfel & Turner, 2004, p. 284). These assumptions lead the authors to conclude that the urge for positive social identities is the basic drive to distinguish one's social group from relevant other groups. Relevant means that the differing attribute between groups must be salient to the individual, have significant value-laden attachments, and all potential competitors must be considered in the comparison.

One important side effect of the need for comparisons is the potential for insecurity. Comparisons need to be constantly re-evaluated and re-articulated in social interactions to confirm the positive identity of one social group versus another. There are occasions when existing evaluations and values begin to be questioned and shift. At this point, Tajfel and Turner highlight that high social status groups can feel threatened, and future comparisons may no longer result in a positive outcome for this group. This can be the result either of actions of the lower status groups or a shift in values within the high status group (Tajfel & Turner, 2004, p. 289). The scholars provide an example in which an inferior group opposes the formerly accepted lower position, which invokes a counterreaction of the dominant group. This counterreaction can show a broad spectrum of strategies ranging from fierce attempts to maintain their positive social identity to creating new differences (Tajfel & Turner, 1979, p. 38). Roughly 40 years later, this argument reawakens under the term "cultural backlash", which was established by Norris and Inglehart to explain the rise of populist and authoritarianist thinking in Western societies (2019, p. 51).

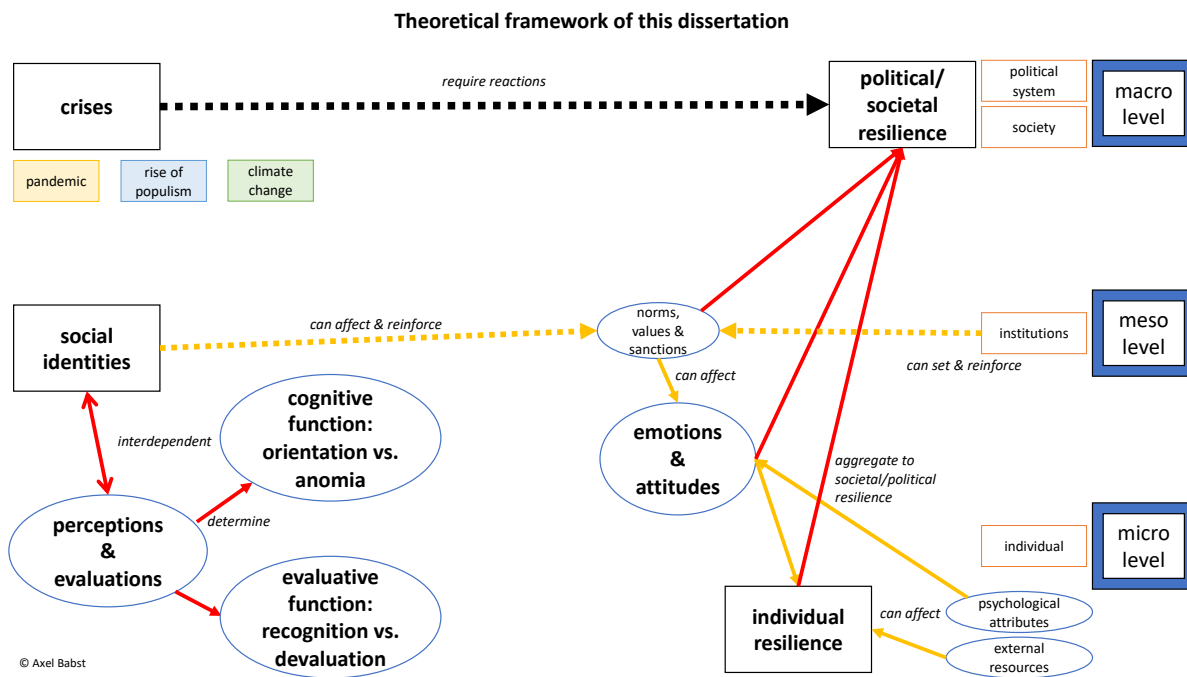


Figure 9: Social identities have an evaluative function

### 2.3 How are social identities connected with recognition?

As positive social identities are essential to humans, how do people know whether their social identity is more positive compared to relevant out-groups? In other words, what is the criterion for assessing the “worth” of social identities? Several scholars argue that recognition of social identities is the key in this comparison (Fukuyama, 2019; Honneth, 1992; Taylor, 2020). To explain why recognition could be this criterion, I need to illustrate why recognition is central to human beings. Theoretical works nowadays usually relate to Hegel and his idea of “Dialektik” to lay the foundation of their recognition theory (Honneth, 1992). Hegel, Mead, and Honneth all distinguish between three spheres of reciprocal recognition: 1) love, 2) rights, and 3) solidarity<sup>3</sup> (Honneth, 1992, p. 152).

“The term ‘love relationships’ should be understood here to mean all primary relationships that follow the pattern of erotic relationships between two people, friendships, and parent-child relationships, insofar as they consist of strong emotional bonds between a small number of people” (Honneth, 1992, p. 153 own translation AB). Honneth interprets Hegel as saying that love is the first stage of mutual recognition because people reveal their needs in love relationships, and their partner’s affection recognizes these needs. The individuals learn to navigate intimacy and autonomy (Honneth, 1992, p. 154). Thus, in the context of love, recognition means less

<sup>3</sup> Honneth introduces the term solidarity as an umbrella term. Hegel originally uses the term morality (“Sittlichkeit”), while Mead does not establish his own term, but merely speaks of democratic division of labor (Honneth, 1992, p. 205).

cognitive acceptance of the other person's needs and more of an emotionally supportive attitude toward the other person's independence (Honneth, 1992, p. 173).

Rights are another form of recognition as individuals accept and recognize each other through the perceived legitimacy of the same right and legislative laws. By following these laws, the individual acknowledges that others are capable of following moral norms with decency (Honneth, 1992, p. 177). At the same time, through the recognition of their own rights by others, individuals learn that they have self-worth/dignity and experience self-efficacy (Honneth, 1992, p. 192 ff). Modern societies are based on the assumption that every citizen has dignity and that only this idea of dignity is compatible with the concept of democracy (Taylor, 2020, p. 15).

The third form of recognition, which Honneth calls solidarity, refers to the social appreciation that individuals receive from others for their achievements and abilities. Individuals no longer have to subordinate their achievements to the collective group, but learn “self-esteem” (“Selbstschätzung”, Honneth, 1992, p. 209). This form is solidary in that subjects appreciate each other symmetrically, giving rise to a community of values.

As Honneth’s (1992) arguments depict, the desire for recognition is a central motive for human behavior. However, the question remains about how recognition and social identities are related.

At this point, Fukuyama (2019) introduces a helpful nomenclature to differentiate between two forms of recognition. He names them “isothymia” (2019, p. 39) and “megalothymia” (2019, p. 40). In referring to the Aristotelian meaning of the word, he understands the common component “thymos” as the part of the human soul that assesses the worth of things (2019, p. 36). “Thymos” is the third part of the soul, alongside reason and desire, completely autonomous from these first two parts.

Stating that this understanding is far too broad, Fukuyama (2019) specifies that in today’s politics thymos refers to the wish for recognition (2019, p. 41). Isothymia includes a form of recognition that grants everyone the same rights (Fukuyama, 2019, p. 41). These are universalistic and democratic fundamental rights that demonstrate recognition in the sense of sphere two of Honneth’s (1992) categorization of recognition. These rights include protection against discrimination of minorities and the less privileged.

Megalothymia, on the other hand, refers to differences between groups. Otherness in particular comes to the fore. The difference is not neutral. Instead, the difference may suggest that the in-group is superior to other relevant out-groups, which is in line with the core idea of the SIT.

Megalothymia now means that not only the otherness of the social identity should be recognized, but that politics and society should appreciate the self-attributed superiority of a small number of people in competition with other social groups (Fukuyama, 2019, p. 39).

Fukuyama (2019) states that, historically, this has been the *modus operandi* within societies for most of humankind and uses aristocrats as an example who ruled societies with their superior standing and without being questioned. The urgent desire for equality and isothymia is a more recent phenomenon in modern societies (Fukuyama, 2019, p. 36 ff).

The simultaneity of the desire for isothymia of the majority and megalothymia of a minority within society harbors a logical conflict that ultimately also discharges as a political conflict. If, on the one hand, the democratic basis is to recognize universal equality, but at the same time certain social groups demand the right to emphasize difference or megalothymia, this results in a contradiction. Politics and society cannot simultaneously treat everyone equally on the one hand and give special treatment to a few groups on the other.

Fukuyama (2019) argues that the core differentiation of isothymia and megalothymia is the root of identity politics. He breaks down the situation of marginalized groups as a choice between two options. They could either focus on the universalistic claim of being granted the same rights as everybody else or insist on their own identity that is different from the identity of the dominant groups, but should get respected as well (Fukuyama, 2019, p. 133). Identity politics refers to the second option. While Fukuyama (2019) admits that this has improved the situation for marginalized groups (people of color in the United States, women in Western societies, homosexual people, etc.), he views this strategy critical as it downsizes structural shortcomings to specific problems of smaller groups and reframes rational arguments as emotional and moral debates (Fukuyama, 2019, p. 142 f). You could interpret identity politics as a combination of both forms of recognition. The claims insist on the difference between social identities, which is key for megalothymia, while demanding the same rights for all social identities independent of their differences, which is the core idea of isothymia.

On the flipside, privileged groups see their megalothymia endangered as it becomes questioned through the claims of universalistic rights for everybody and the emergence of identity politics. Questioning formerly positive social identities is exactly what Tajfel and Turner postulate as a threat to the dominant social group (Tajfel & Turner, 2004, p. 289). Macro-structural crises can trigger identity threats in various ways. The result of such an identity threat could be a cultural

backlash, as theorized by Norris and Inglehart (2019), in which hegemonic groups embrace authoritarianist or populist thinking to prevent a change in social hierarchies (Norris & Inglehart, 2019, p. 132 ff). This assumption of the Cultural Backlash Thesis leads us to the next important question, which I will discuss in the next sub-section: why is recognition of social identities a potential key to forming resilience?

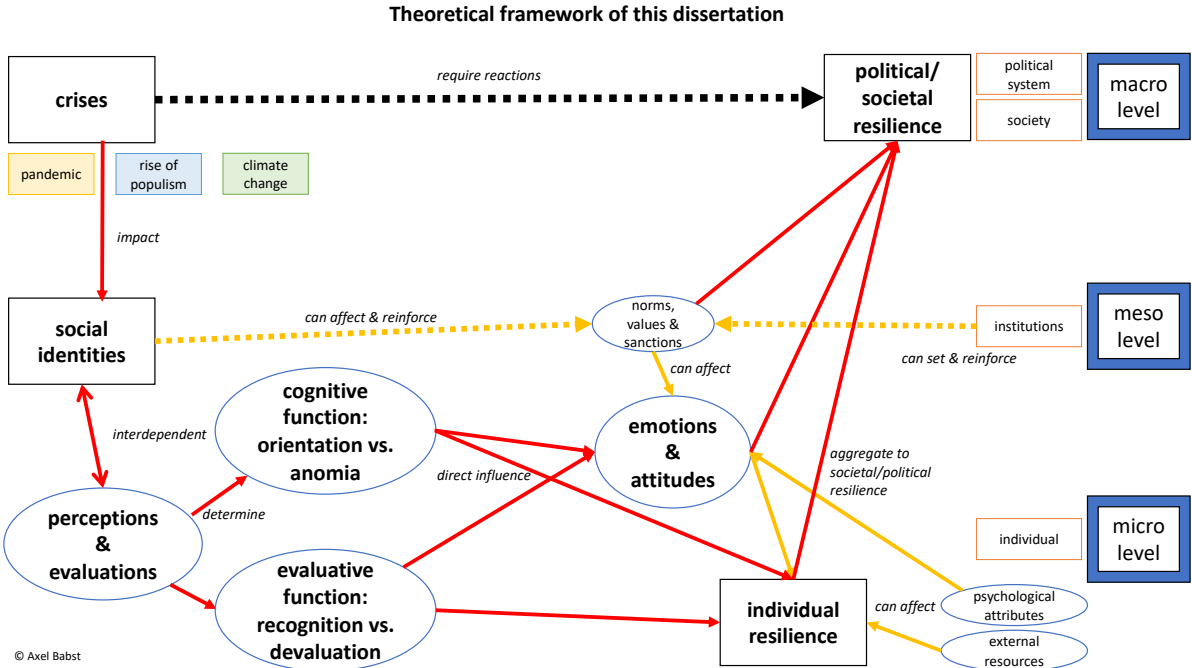


Figure 10: Social identities have direct effects on emotions, attitudes, and individual resilience through their cognitive and evaluative functions

#### 2.4 What mechanisms connect recognition of social identities with resilience?

As I have discussed the terms resilience, social identities, recognition, and the association between recognition and social identities, the next question is how exactly recognition of social identities influences resilience. I assume four mechanisms that may explain why recognition of social identities is essential for strengthening resilience: 1) Weakening perceived threats through the recognition of social identities should increase the individual resilience; 2) enhancing self-esteem and self-efficacy is expected to increase individual resilience, too; 3) the recognition of social identities may signal benevolence which, in turn, should enhance political resilience; 4) social recognition also facilitates the interaction with the society and social environment which implies that social recognition may activate a sense of collective responsibility, reciprocity and solidarity norms, thus leading to a higher level of societal resilience. I will elaborate on these mechanisms in the following sub-sections.

#### 2.4.1 Weakening perceived threats

The first mechanism through which the recognition of social identities strengthens *individual resilience* aims at mitigating perceived threats. These refer less to abstract threats due to economic bottlenecks, social or psychological stress due to an overload of choices, a general lack of resources, and the associated assessment of one's situation as hopeless. Forty years ago, Beck (1986) postulated the development towards a “risk society” due to the increasing individualization of Western societies. The core idea of the individualization hypothesis is that individuals are increasingly breaking away from normative and traditional life plans and instead a multitude of newly emerging life courses can be observed (U. Beck, 1986, p. 216 f). On the one hand, removing boundaries from traditional family, work, and social relationships means that the individual is no longer forced to obey associated role expectations, which results in a higher degree of individual freedom of choice. However, Beck (1986) emphasizes that the traditional life courses are only replaced by new forms as additional risks arise from the loss of clearly defined expectations for action: there is a lack of certainty when making landmark life decisions, and at the same time, the individual is more dependent on the opportunities offered by the education system and labor markets (U. Beck, 1986, p. 211). This implies greater pressure for the individual to choose the correct option when making important life decisions, as the consequences of one wrong decision can be serious. The responsibility for severe outcomes is (self-)attributed to the individual – Beck (1986) calls this the individualization of fate (U. Beck, 1986, p. 144 own translation AB) and the “transformation of outside causes into inside blame” (U. Beck, 1986, p. 150 own translation AB).

However, the individualization of life situations not only leads to a lack of collective consciousness among individuals affected by the same risks. Instead, this lack has an additional effect: the reduction of expectable social capital. Following Bourdieu (2020), social capital refers to the sum of all resources potentially available through one's social network. The argument of Beck (1986) states that in traditional societies, the individual can rely on social capital provided by fixed social structures through the family, which provides a safety net in the event of job loss, divorce, or accidents, cushioning the potential fall and danger. Due to individualization, access to social capital is shrinking, and individuals must take care for their own needs. Authors such as Putnam (2000 for the United States) and Reckwitz (2020 for Germany) take up this scenario and outline how focusing on the individual erodes essential forms of cohesion and support. As I explained in 2.1.4, the availability of external resources – i.e., social capital – impacts individual resilience. A decline in social capital may therefore be associated with a lower degree of individual resilience.

Against the background of individualization, economic (fear of job loss, increasing prices, decreasing wages, precarious employment), social (status loss in the social hierarchy, isolation, lack of support), and cultural (fear of value changes, erosion of traditional social structures, globalization, and multiculturalism) dangers are perceived as even more threatening. Following this argument, one way to increase individual resilience would be to develop new arrangements through which the individual can draw on social capital and thus cope with individual risks by mitigating these through access to collective resources. At this point, the allocation to social identities and the associated recognition come to the fore as a mechanism that can be an alternative to traditional forms of access to social capital.

The basic assumption is that the social identities of individuals serve as substitutes for the social groups that traditionally provided social capital. This is an assumption that Beck incorporated implicitly in the past and that has become more salient nowadays (1986, p. 158 ff). Instead of pronouncing the belonging to a family, church, or neighborhood – all of which are firmly defined groups that the individual can only change at great cost, if at all – social identities are the new potential providers of social capital. There are two components in the recognition of social identities, one cognitive and one emotional, which may improve individual resilience in three ways.

First, receiving recognition has a signaling effect on a cognitive level. Recognition from other entities implies that they also assign the individual to a social group. The individual thus receives confirmation that they should be entitled to the group's resources. The mere prospect of a legitimate claim to access collective resources should strengthen individual resilience.

Second, recognition also has an affective component. Recognition in the sense of appreciation means that individuals and their claims are respected. Individuals can transform recognition as a form of respect into the probability of the individual having access to resources. The higher the level of recognition received or as soon as the level of recognition expected by the individual is shown, the more certain individuals can be that their (potential) demands will be respected and fulfilled.

Third, such an experience can also have an impact on future situations. Suppose the individual has had the experience that recognition translates into legitimate access to resources. In that case, this can cause the individual to feel less threatened, even though the group may not currently have the compensatory resources available. For instance, if recognition from macro social actors such as the state or society has led to emergencies or needs being addressed in the past and an improvement has subsequently occurred (for example through a change in the law,

an increase in wages or, in the case of the pandemic, the introduction of short-time labor by the German government), then a renewed signal of recognition can cause the individual to feel less threatened in a potential emergency, even if no acute assistance is being provided. Signaling the understanding of the situation may already be sufficient to cushion the perceived danger for the individuals, as they can expect further measures to be taken by the recognizer.

Results of Block et al. (2022) support this notion by indicating that implementing emergency aid for self-employed persons in Germany had beneficial effects on their economic prospects and mental health. Previous empirical studies investigating the relationship between economic threats and social identities have so far been limited to examining the different reactions of social identities and identifying possible polarizations by emphasizing the differences between social groups as a result (Fritsche & Jugert, 2017; Jetten et al., 2021). However, the extent to which positive social identities can reduce the perception of danger has hardly been empirically researched. The work of Dare and Jetten (2022) is a rare exception and arguably the most sophisticated attempt to investigate the association between social identities and economic perceptions. The authors show that belonging to recognized social groups and the availability of a higher number of social identities to an individual impact the relationship between the perceived fairness of economic inequality and prosocial behavior (Dare & Jetten, 2022).

#### 2.4.2 Enhancing Self-esteem and self-efficacy

Another mechanism through which the recognition of social identities could strengthen individual resilience addresses the increase in self-esteem and the associated strengthening of feelings of self-efficacy. This mechanism is based on two conceptual connections. The first assumption is that a positive social identity is closely linked to an individual's self-esteem. The second assumption is that high self-esteem positively affects the individual's self-efficacy. As already discussed in the corresponding subsection (see 2.1.1), an increase in self-efficacy is, in turn, an important building block of individual resilience. Self-esteem and self-efficacy are so closely intertwined that these two concepts are often even equated in the literature, as Gist and Mitchell (1992) note. However, Bandura (1997) makes clear that these two concepts are distinct: "Perceived self-efficacy is concerned with judgments of personal capability, whereas self-esteem is concerned with judgments of self-worth" (Bandura, 1997, p. 11). "Capability" is a portmanteau of the terms "capacity" and "ability" that Bandura used to define efficacy as "a generative capability in which cognitive, social, emotional, and behavioral subskills must be organized and effectively orchestrated to serve innumerable purposes" (Bandura, 1997, p. 43 f).

The SIT inherently contains the assumption that a positive social identity is important for the individual because it provides an opportunity for the individual to maintain or enhance self-esteem. Group memberships are attributed with positive or negative values, and belonging to a group that wins a comparison with another relevant group in terms of a particular value dimension enhances self-esteem (Tajfel & Turner, 1979, 2004). This original assumption was soon expanded into the “self-esteem hypothesis” (SEH, Abrams & Hogg, 1988, p. 318), which helps to explain the “in-group bias” (Tajfel & Turner, 1979, p. 38). According to Abrams and Hogg (1988), the SEH contains two corollaries: 1) successful intergroup discrimination will enhance self-esteem; 2) threatened self-esteem will encourage intergroup discrimination due to the need for positive self-esteem – making self-esteem both a dependent and independent variable. Explorative studies find evidence for this hypothesis: when a social identity is threatened, individuals seem to derogate the out-group to maintain a safe state (Branscombe & Wann, 1994; Noel et al., 1995). At the same time, when a social identity is under trial and wins the comparison with a relevant out-group, this enhances collective self-esteem (Branscombe & Wann, 1994).

However, it is important to consider two aspects at this point. First, this connection relates to a precise understanding of self-esteem: self-esteem based on a social identity (Abrams & Hogg, 1988; Tajfel & Turner, 1979), called “specific collective self-esteem” (Crocker & Luhtanen, 1990, p. 60). This form is to be distinguished, for example, from global (Rosenberg et al., 1995), personal (Long et al., 1994), or trait-specific self-esteem (Heatherston & Polivy, 1991; for a detailed discussion see Rubin & Hewstone, 1998). Martiny & Rubin (2016) point out that this explains why empirical studies report mixed results when testing the connection between social identity threats and self-esteem, as several authors do not account for these theoretical considerations. Studies based on identity-specific self-esteem support the assumption that a positive social identity leads to higher self-esteem than relevant out-groups (Branscombe & Wann, 1994; for a review see S. Martiny & Rubin, 2016; Rubin & Hewstone, 1998).

Second, the original interest behind the SIT lies in explaining the emergence of conflicts between different social groups (Tajfel et al., 1971). Based on initial findings by Oakes & Turner (1980), in more advanced stages, the SIT posits that the individual perceives a social identity as self-esteem-enhancing and therefore positive, and that an external threat to this positive image by another out-group leads to conflicts between the groups (Abrams & Hogg, 1988; Hogg & Abrams, 1990; S. E. Martiny et al., 2012). This view is also relevant if the degree of social cohesion is to be increased - and thus implicitly the degree of inter-group conflict reduced - to increase social resilience.

Nevertheless, I would like to look at the issue from the opposite perspective: what happens when a positive identity is recognized, i.e., when the person receives positive feedback that should boost self-esteem? High self-esteem due to the recognition of positive social identities should increase perceptions of self-efficacy and, thus, individual resilience. The relationship between self-esteem and self-efficacy has only been marginally discussed in the literature on SIT (Hogg & Abrams, 1990). High self-esteem may increase perceptions of self-efficacy because a recognized social identity means that the social group is seen in a favorable light. In other words: the individual receives the feedback that it is winning social comparisons and meeting the criteria for successful identity management strategies (Ellemers & Rijswijk, 1997; S. E. Martiny & Kessler, 2014). This is important for experiencing self-efficacy in two ways. First, from a theoretical perspective, positive feedback may lead to a higher degree of self-efficacy because individuals have a cognitive representation of their abilities in mind, and if the feedback is congruent with that image or even more positive, this may enhance self-efficacy (Bandura, 1997; Bandura & Cervone, 1986; Gist & Mitchell, 1992). The relationship between feedback and self-efficacy has already been demonstrated empirically – at least in physical (Bandura & Cervone, 1986) or working tasks (Martocchio & Dulebohn, 1994; Reynolds, 2006). Second, once the identity management strategies have proven successful for the first time and resulted in the desired outcome, the individual thus learns that the strategy can overcome a potential threat to a social identity. This is exactly in line with Bandura’s reasoning, who states that “efficacy beliefs are structured by experience and reflective thought” (Bandura, 1997, p. 51) and “enactive mastery experiences are the most influential source of efficacy information” (Bandura, 1997, p. 80). Suppose all individuals in a social group experience self-efficacy through their social identity. In that case, the individual resilience of all group members is likely to be strengthened, which may aggregate at the macro level and thus also may give society more stability.

Only a few studies have investigated the relationship between social identities and self-efficacy. Guan and So (2016) offer the most explicit elaboration among these. They show that a high degree of identification with a social identity correlates significantly with self-efficacy, with this relationship being mediated by the perceived availability of help from the group associated with the identity. Cameron et al. (2018) find that identification with a self-management group of people with a chronic disease correlates positively with perceived group and thus also individual self-efficacy. Results from Greenaway et al. (2015) indicate that social identities strengthen the sense of control and perceived capabilities.

### 2.4.3 Signaling Benevolence and trustworthiness

Resilience in the sense of *democratic resilience* focuses on the degree of socially anchored trust and belief in the functionality of institutions. Institutions ensure the implementation of democratic values. According to Luhmann (2014), trust is an essential form of communication as it reduces complexity and is the only way social systems - including societies and liberal democracies - can endure in the long term. In this respect, through their trust in institutions, the population communicates the extent to which society stands behind the values and current implementation of liberal democracies. Accordingly, a high general level of trust in institutions would mean that democracy is resilient, as citizens agree with the processes and are satisfied with the implementation. Thus, a higher level of agreement with political processes would mean that the population is more willing to protect the current status quo in society against internal or external threats.

Yet, some scholars argue that trust is a concept that needs to be applied in the context of human beings only. Luhmann (2014) suggests that the correct term to use would be confidence when discussing institutions. A solution to bridge this gap is the introduction of trustworthiness, which can be applied to institutions (Hardin, 1996). In a minimalist understanding, trustworthiness refers to “the motivation (or lack thereof) to lie” (Mayer et al., 1995, p. 716).

Kim (2005) identifies five concepts that are frequently discussed in the literature to analyze the roots of perceived trustworthiness of the political system: 1) credible commitment, 2) benevolence, 3) honesty, 4) competency, and 5) fairness. It should be noted that these five components are permeable, overlap, and can be substitutes, which makes a sharp distinction hard to assess empirically (Kim, 2005). This also explains why some authors name different antecedents to trustworthiness. Mayer et al. (1995) identify ability, benevolence, and integrity as the core predictors of trustworthiness (for an overview of the factors discussed see Kim (2005) or Mayer et al. (1995)). Furthermore, different scientific disciplines have varying understandings of trust and trustworthiness, even though the core ideas are similar across the disciplines (Rousseau et al., 1998). Arguably, the most general condition of trust is benevolence, which is why I focus on it for this work (Deutsch, 1960; Solomon, 1960; Strickland, 1958). According to Mayer et al. (1995), “Benevolence is the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive. Benevolence suggests that the trustee has some specific attachment to the trustor. [...] Benevolence is the perception of a positive orientation of the trustee toward the trustor” (Mayer et al., 1995, p. 718 f).

The question is now how the recognition of social identities connects with the perceived benevolence of institutions. As Hart (1984) has demonstrated with his introduction of the “honorable bureaucrat” – an ideal type of the civil servant – institutions can act as recognizers. Through policymaking, politicians, legal systems, state representatives, and many other institutions send signals to the citizens of the democracy (Kim, 2005; Levi, 1998). These signals influence whether people in general, certain groups within democracy, and individuals feel seen and recognized or, conversely, feel neglected and disembodied at the other end of the spectrum. Hence, these signals give citizens information about the responsiveness of the political system, which influences the level of perceived trust (Alvarez & Brehm, 1998). If people feel respected and recognized in the sense that they feel treated fairly and that their needs are met, they should interpret this as a sign of good will (Tyler, 1998). Good will is the affective or moral component of trustworthiness (Wicks et al., 1999). Moreover, if citizens rate political institutions as effective and competent, this in turn should have a positive effect on the perceived trustworthiness of these institutions (E. M. Berman, 1997; Braithwaite, 1998; Tyler, 1998). This argument is closely intertwined with the concept of external political efficacy. External political efficacy is, by definition, citizens' assessment how the government meets the people's demands (Balch, 1974; Converse, 1972; Craig et al., 1990). In case of doubt, citizens will be more willing to be patient in the event of crises or short-term deterioration, if they have experienced that the institutions have worked in the past, and should therefore be more confident that institutions will find solutions to current problems.

Responsiveness, external political efficacy, and the subjectively perceived recognition by institutions are closely related concepts, but they should be separated, at least theoretically. According to Esaiasson et al. (2015), responsiveness is the cognitive assessment of whether institutions listen to citizens' demands, explain their decision-making process, and adjust their policies to account for citizens' sentiments. External political efficacy involves a subjective and general assessment of whether institutions and the government are responsive (Esaiasson et al., 2015). The recognition of individuals also involves a subjective evaluation. However, unlike political external efficacy, it is not limited to evaluating policy output—i.e., whether individuals can influence political decisions—but also considers the process itself and whether individuals feel that the political actors acknowledge their problems, concerns, or pure existence. Experiences of external efficacy can be a component that influences the degree of perceived recognition. However, regardless of external political efficacy, the perceived responsiveness of the political apparatus can also impact the level of recognition. The mere fact that wishes or problems are discussed and thus perceived—i.e., the cognitive perception of how personal concerns are dealt

with—can already be associated with the degree of recognition. Accordingly, there is a direct and indirect path from responsiveness to recognition.

Based on these assumptions, I argue that responsiveness, external efficacy, and recognition must be differentiated at the theoretical level. Nevertheless, all three concepts influence the degree of perceived benevolence, forming the basis for institutional trust and trustworthiness. In summary, the argument is that institutions can act as recognition providers. By responding to political demands, they can signal their recognition to their citizens or specific subgroups (social identities). If people feel recognized in their social identities (e.g., through responsiveness or external political efficacy), this should increase the level of perceived benevolence of the government. The more benevolent the state is perceived to be, the more likely it is to be considered trustworthy, which would ultimately strengthen the political resilience of a liberal democracy.

In addition to political resilience, the mechanism linking recognition and trustworthiness can also be applied to societal resilience, although the mechanism works differently. According to Tanis and Postmes (2005), membership in the same in-group should already lead to another person being classified as more trustworthy. This leads to an expectation of reciprocity: if one person trusts another based on their shared social identity, the second person should also be willing to reciprocate this trust. These mutual reciprocity expectations of trustworthiness within the in-group should lead to trust and trusting behavior.

Empirically, Tanis and Postmes (2005) show in an exploratory experimental design that the perceived trustworthiness of in-group members is generally higher than that of out-group members. The perceived trustworthiness of out-group members increases once information about personal identity is provided - this effect is not observed for in-group members. I conclude that belonging to a common social identity alone increases trustworthiness and trust in each other. Beyond mere membership of groups, the *recognition of social identities* should lead to an increase in generalized social trust. By recognizing a social identity, society, institutions, and out-groups make an unconditional symbolic advance that favors the in-group. In consequence, the recognized in-group responds by trusting the recognizing parties. After having experienced a sufficiently large number of situations in which they are recognized, the individual is likely to develop the expectation that their social identity is generally recognized. At this point, symbolic or communicative gestures of recognition are no longer necessary for establishing trust. Instead, members of recognized social groups develop a basic expectation and trust of society's good intentions towards the members of the in-group.

#### 2.4.4 Activating collective responsibility and solidarity norms

For the last mechanism, I propose that social identities and the recognition of those can activate a sense of collective responsibility and solidarity norms, thus enhancing societal resilience. It should first be noted that societal resilience is often associated or even equated with social cohesion in the literature of social sciences (Delhey & Dragolov, 2016; Fonseca et al., 2019). The general assumption is that a high degree of social cohesion helps to consolidate the persistence of social conditions and is a desirable good (Schiefer & Van Der Noll, 2017). Social cohesion is a multi-layered construct operationalized across various dimensions (Berger-Schmitt, 2000; Bernard, 2002; Chan et al., 2006). In addition to institutional trust and generalized social trust, these include, among others, orientation towards the common good, solidarity norms, and reciprocity expectations and obligations (Delhey et al., 2023; Schiefer & Van Der Noll, 2017).

Here, too, the question arises as to what extent the recognition of social identities strengthens the manifold facets of social cohesion.

Social groups establish norms that influence the actions of their members (Turner et al., 1994). Through membership in social groups, the members of this group internalize the norms of the entire group, mainly if the individuals attribute an emotional value to membership in this group, thus creating a social identity (Hornsey, 2008). Implicitly, individuals can assume that other members of their in-group also follow the same norms, which leads to the expectation of congruent and cooperative behavior between individuals (Feldman, 1984). Predictable behavior consistent with one's own norms, Zucker (1986) calls this background expectation, should lead to greater trust in other individuals. Indeed, studies examining the effects of social identities on adherence to group norms find significant correlations for various forms of group norms, be it environmental activism (Bonaiuto et al., 2002; Fielding et al., 2008), a particular type of food or alcohol consumption (Livingstone & McCafferty, 2015), or political behavior (Suhay, 2015). Although the studies use mostly convenience and small samples in experimental designs, the range of applications suggests that salient social identities significantly influence compliance with group norms.

The greater the adherence to group norms, the higher the diffusion of social norms should be (Fukuyama, 1995; Putnam, 2000, p. 288). Empirical studies confirm this assumption, as accepting group norms has a positive effect on components such as generalized trust (Braesemann & Stephany, 2021; Paxton, 2007).

From the opposite point of view, a lack of integration into social groups and identities may lead to an anomic state in which individuals have deficits in locating themselves in social contexts.

This lack of social positioning can result in uncertainty about social roles and the instructions and expectations for action associated with them. This uncertainty may make it less likely that the individual will be willing to trust others in society, cooperate with them, or act in solidarity. Several studies demonstrate that anomia leads to populist attitudes (Droste, 2019; Spruyt et al., 2016).

Moreover, due to the increased complexity of social relations in a globalized world, individuals can also feel overwhelmed by the many social identities they have and may have conflicting norms attached. Kinnvall (2004) frames this state as “ontological insecurity” (Kinnvall, 2004, p. 749). As a result, social identities can conflict, leaving the individual with existential threats (Hirsh & Kang, 2016) and cognitive dissonance (Roth et al., 2018).

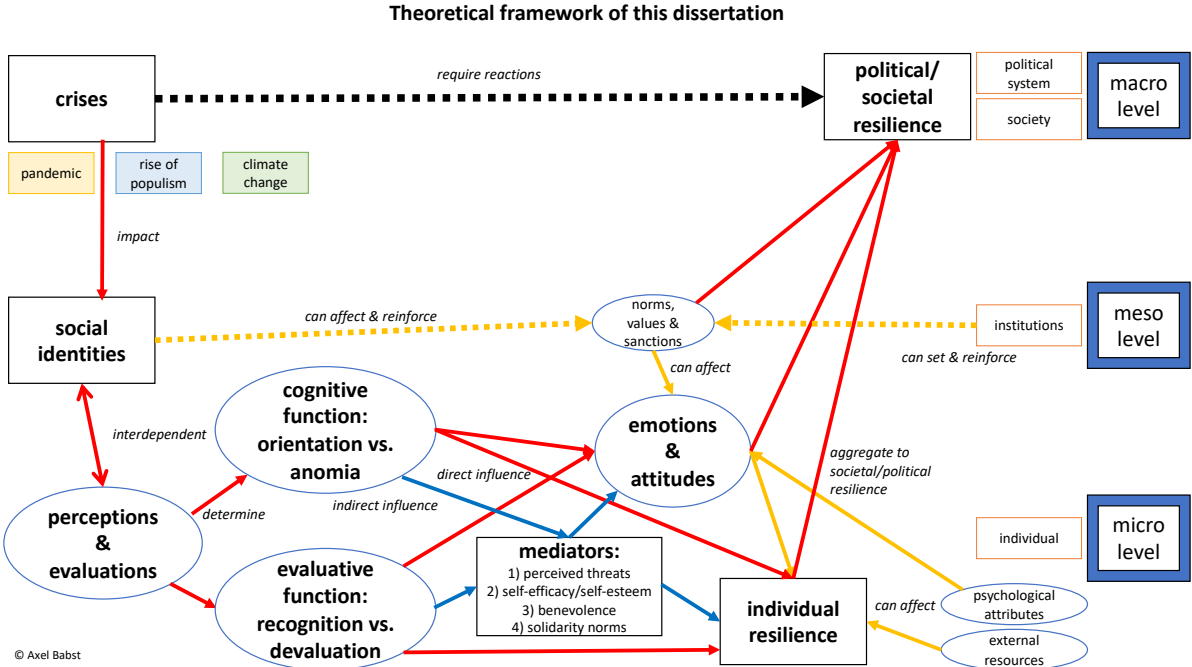


Figure 11: Social identities have additional indirect effects on emotions, attitudes, and individual resilience through their impact on 1) perceived fears, 2) self-efficacy and self-esteem, 3) benevolence, and 4) solidarity norms, among other mediation mechanisms.

### 2.5 Which social identities do I analyze? How is their recognition associated with political attitudes?

In the previous sub-sections, I elaborated on the theoretical arguments behind the recognition of social identities and their assumed impact on different types of resilience. In this last section of the theoretical background, I take a closer look at the current state of the research that examines the social recognition of different social identities. From the multitude of possible social identities, I have chosen three social identities as exemplary subjects for investigation: social class identities (2.5.1), occupational identities (2.5.2), and West German and East German

identities (2.5.3). I will justify this selection below before summarizing the current state of research on the three selected social identities in the corresponding sub-chapters.

Norris and Inglehart (2019) provide the first general insights by stating that “traditional identities concerning faith, family, ethnicity, and nation, common in the mid-twentieth century, are no longer predominant in Western societies, especially among cultural elites” (2019, p. 47). In addition, they also count social class identities as another traditional social identity (2019, p. 50). In contrast, new social identities and the cultural conflicts surrounding them revolve around multiculturalism, gender roles, sexual identities, ethnic diversity, equal rights for women, and religious minorities (2019, p. 72). The conflict of identity politics discharges along this division into traditionally respected social identities on the one hand and social identities that have not yet experienced equal rights or are newly emerging.

A review of the existing literature reveals differences in the scope and quality of previous quantitative attempts to measure different *social identities*. The most sophisticated attempts to measure social identities concern ethnic/national identities (Billiet, 2001b; Gustavsson & Stendahl, 2020; Miller & Ali, 2014; Reeskens & Wright, 2013; Wamsler, 2023), gender identities (Alexander et al., 2021; Banducci et al., 2020; Westbrook & Saperstein, 2015), and religious identities (Alwin et al., 2006; Billiet, 2001a; Leite et al., 2023). In political science, social identities are conceptualized according to in-group and out-group membership and analyzed under “partisanship” (Bankert et al., 2017; Huddy & Bankert, 2017; West & Iyengar, 2022). The *recognition of social identities* has hardly been measured to date. A few studies discuss the recognition of rights and equality, for example, in the recognition of minority rights (Verkuyten, 2006). In contrast, the devaluation of social identities in the sense of discrimination is a frequent subject of research (Ayalon, 2014; Kromczyk et al., 2021; Mustafa & Richards, 2019).

Since it would have gone beyond the scope of this dissertation to include all possible relevant social identities in the analyses, I had to decide on a small selection. For this work, I focus on the recognition of three social identities: social class identities, occupational identities, and East German and West German identities. Several arguments guided this decision.

Firstly, **social classes** offer a special social identity, as there is a long tradition of studying them. Karl Marx (2018) discussed the development of class consciousness in the context of industrialization in the 19th century. Accordingly, Norris and Inglehart (2019) classify this social identity as traditional. Empirical studies in sociology often contented themselves with classifications based on established schemata (R. Erikson & Goldthorpe, 1992). The argument was that

objectively measurable class status influences the life situation of individuals in all possible areas of life, such as health (Holst et al., 2021; Robert Koch-Institut, 2018; Whitley et al., 2022), life satisfaction (Diener et al., 2010; Kaiser & Trinh, 2021; Lipps & Oesch, 2018), and material security (Chun et al., 2023; Goedemé et al., 2022; Western et al., 2012).

However, this is not a measurement of social identity, but rather an ex-post assignment. This approach leaves out the subjective component. According to SIT, individuals must classify *themselves* into in-groups and have at least minimal emotional attachment to their in-group (Tajfel & Turner, 2004; Turner et al., 1987, 1994). Measures of subjective class are limited, and, to the best of my knowledge, a scale to assess recognition of one's own social class identity has not been established so far. Therefore, I have chosen social class identity as one of the three social identities for my analyses to fill this research gap.

Second, considering the choice of **occupational identities**, I want to emphasize the context in which this research was conducted and that initiated the research question. The pandemic was a tangible crisis as it impacted societies around the globe without exception: all individuals experienced drastic changes in their daily lives for an extensive period. As an experimental setting by chance, the crisis put different social identities on trial. At least for the German case, the most frequently discussed social identity during the early stages of the pandemic was the occupational identity, as regulations and infection mitigation policies had to be based on defined essential occupations required for maintaining infrastructure (Bundesministerium der Justiz, 2016; Bundesregierung, 2020). The political interventions created a new category of social inequality and unleashed a cascade of consequences, which I have already outlined in the introduction. Thus, focusing on occupational identities and how their impact during the crisis offered a unique chance to study the association between crisis, social identities, and resilience. On the one hand, I investigated the extent to which a crisis of this magnitude affects a social identity and its perception. On the other hand, I could analyze how recognized social identities affect resilience in times of crisis.

Third, I decided to examine **East and West German identity** based on historical and empirical factors. From a historical perspective, 35 years after German reunification, almost as much time has passed since the end of the German Democratic Republic (GDR) as it existed. Literature has long grappled with whether there was such a construct as a specific East German and West German identity and whether it still exists today (Pickel & Pickel, 2020; Pollack, 1997; Pollack & Pickel, 1998). Empirically, East and West Germans differ in their voting behavior and

attitude patterns (Deppisch et al., 2022; Haffert, 2022), which could impact resilience in the respective regions and could be due to different identity structures. Accordingly, by including East and West German identities and the associated recognition, I contribute to understanding the resilience potentials in East and West Germany and whether they differ.

### 2.5.1 Social class identity

The term "class" is inevitably associated with the name Marx (2018), who used it as the key to his theory of exploitation to describe the relationship between two groups of people that emerged in the course of individualization and the beginning of capitalism: on the one hand, the bourgeoisie, which possesses capital, and on the other, the proletariat, which sells its labor to the bourgeoisie<sup>4</sup>. Since, according to Marx (2018), the value of the goods produced does not correspond to the value of the capital paid for them, the two groups are in a relationship of exploitation. Only when the class in itself becomes the "class for itself" (Marx, 2018, p. 157), which implies that the exploited class gains class consciousness, does the exploited proletariat have the chance to redress this imbalance. This is probably the first time we can speak of a social class identity. This hierarchical understanding of class in economic terms was formative until the post-World War II period.

Traditionally, social structuralists have attempted to categorize individuals into clearly defined categories based on rigidly defined criteria (Breen, 2005; R. Erikson & Goldthorpe, 1992; Goldthorpe & Marshall, 1992). Towards the end of the 20th century, this view was questioned, at the latest when Clark and Lipset (1991) polemically declared class to be dead. As Bottero (2004) points out, the understanding of class identities has diversified in the recent past. In contrast to the traditional understanding of classes as hierarchical socio-economic groups, there is a newer school of thought which, according to Savage (2000), is based on the observation of a paradox: while objective socio-economic status does have an impact on the living conditions of individuals, these effects are not perceived by individuals to the same extent. Hence, classes are seen as more fluid and enriched by cultural dimensions (Bourdieu, 1987). Most prominent here is the contribution of Pierre Bourdieu (2020), who incorporated concepts such as social capital, cultural capital, habitus, and the striving for distinction into the concept of class. Scholars started questioning whether researchers can still discuss social class identities based on different arguments. First, due to the culmination of socio-economic criteria and cultural components, it may not be clear whether social class is the most salient social identity (Savage et al., 2010; Titelman, 2023). Other authors doubt that subjective class categorization can be described

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<sup>4</sup> In addition, Marx(2018) identifies the third group of landowners, which he sees as a relic of feudalism.

as a deep-rooted identification with class, as the majority of people classify themselves as middle class (Andersen & Curtis, 2012; D’Hooge et al., 2018; M. D. R. Evans & Kelley, 2004; Sosnaud et al., 2013). Lastly, scholars argue that class identities are not always visible at first glance. In contrast to other social identities, such as ethnicity or gender are more so, meaning that social context effects are more likely to be attributed to these other social identities (Ohman, 2003; Thomas & Azmitia, 2014).

However, an explorative empirical study by Thomas and Azmitia (2014) indicates that social class identities remain salient, when tested compared to other potential social identities like gender or ethnicity. However, a higher degree of differentiation appears necessary to categorize these class identities and account for cultural capital (Savage et al., 2013). For example, we cannot speak of a general working class. Instead, the understanding and degree to which members of this class feel connected to their social identity seems to differ depending on the country context (G. Evans et al., 2022). Furthermore, different currents within the working class vary in terms of their objective and subjective status, putting different emphases on their class consciousness. In one example, Knowles et al. (2024) identify three different subtypes in an analysis of the white American working class: “Working Class Patriots”, “Class Conflict Aware”, and “Working Class Connected”. The former associate their working class with a culturally patriotic mindset and set themselves apart from the poorer ones. The second type blames the elites in particular for the prevailing social inequality. The third are probably closest to Marx's idea of the proletariat, as they continue to define themselves strongly regarding their working-class identity and do not feel adequately recognized by the higher-ups, particularly for their performance on the job.

At the same time, it seems inevitable that the objective and subjective working class correspond to each other (Bornschieer et al., 2021) and subjective class perceptions are more valid than their reputation suggests (Oesch & Vigna, 2023). Research indicates that social identities based on class identities are important factors in explaining political and societal resilience components like political attitudes or proxies of social cohesion (Bornschieer et al., 2021; Stubager, 2009). Moreover, it is important to account for the context in terms of the political communication by the supply side (Ares, 2022) and the political preferences by the demand side (Häusermann et al., 2022).

### 2.5.2 Occupational identity

Occupational identities are important social identities because humans incorporate what they do into their identity to describe who they are (Ashforth & Schinoff, 2016; Billett, 2007; Pusey, 2003; Ulfsdotter Eriksson & Linde, 2014). Moreover, occupations offer a source for building a

positive social identity because they provide an opportunity for self-realization and receiving praise, result in tangible results, and can be a way for being seen as responsible and competent in a social role (Duemmler et al., 2020; Dutton et al., 2010; Meister et al., 2014). Occupational identities are closely interceded with class identities as occupations are the leading indicator for social inequality in social stratification research (Blau & Duncan, 1967). Nevertheless, it is important to distinguish between social class and occupational identities. While the material components of both identities are similar, if not identical, there are differences in the social component. Reckwitz (2020), for example, argues that there are considerable differences in the reputation of different occupations. This means an occupation can be an identity-forming social (in-)group as these differences across occupations can separate in- from out-groups.

Moreover, the *recognition* of occupational identities, on the one hand, needs to be separated from the *prestige* of occupational groups. The term prestige was coined in sociological literature by Treiman (1976). Prestige assessments are made from the outside and encompass the attempt to establish a generally accepted hierarchy between occupational groups. As Wegener (1992) notes, this understanding of prestige is the dominant domain in research, even though it is not uncontested. Treiman claims that the prestige of occupations is consistent within societies and across cultural boundaries (Treiman, 1976). Goos and Manning (2003) distinguish between “lousy” and “lovely” jobs: the former are associated with positively connoted attributes, including creativity, innovation, and intellect. The latter, on the other hand, are repetitive, physically demanding, and comparatively poorly paid.

The recognition of occupational groups refers to the perspective of the in-group. The perceived extent of recognition is not claimed to be objective. Instead, occupational groups aim to present their in-group in the best possible light. An occupational group can have low prestige and still build a positive social identity by emphasizing its positive differences from other groups (Kreiner et al., 2006). For example, sanitation workers can claim that societal life would not be possible without them. Workers in this generally not highly regarded occupation can maintain a positive self-image through this extraordinary task, which other citizens must recognize. This implies by no means that the recognition hierarchy would be generally accepted. On the contrary, it is fiercely contested, and each occupational group tries to get the best for itself.

Against the background of this work, special period effects must be considered. The Covid-19 pandemic was an incisive experience, as occupational identities were put to the test by temporary occupational bans and reduced working hours as a result of infection control measures (Fairlie, 2020; Kalenkoski & Pabilonia, 2022; Kritikos et al., 2020). Self-employed and small business owners received de facto feedback that their work was dispensable from a societal

perspective, which posed an existential threat in both material (Fairlie, 2020; Holst et al., 2021; Kritikos et al., 2020) and ontological terms (Warran et al., 2023). On the other hand, production workers, workers in healthcare professions, or logistics and transportation were exposed to a higher workload close to or even beyond the exhaustion threshold with an increased risk of infection (Green & Semple, 2023; Holst et al., 2021). This range of impairments to occupational identities was also reflected in the social debates about which mitigation measures were both epidemiologically sensible and justifiable for society.

Within occupational identities, another distinction must be made between two forms of occupational identity and the recognition they receive. This distinction can be explained using a fictitious example of two doctors. Doctor A cares for his patients, takes time for them, and treats them well. Accordingly, he will also be appreciated by his patients for his efforts and services. On the other hand, Doctor B does not listen to his patients, is annoyed and exhausted by his work, and often does not prescribe the proper medication. Compared to Doctor A, Doctor B is likely to receive less recognition from his patients and is not as committed to his job. Both individuals are doctors and belong to the same occupational group, so they have the same *occupational identity*. However, both people differ in their *job identity* and the personal recognition they experience in the direct job context. From now on, I will refer to this very specific form with individual characteristics as *job identity*.

The occupational identity focuses on an aggregated level and incorporates the idea of *doctors as an occupational group*. People in these professions often have the same experiences, even if not in the same way. All doctors treat patients, but the medical issues they cover can widely. Common vocational training, task profiles, and experiences feed into a social identity as one occupational group.

Looking at the existing literature on occupational and job identities and recognition in this context, it is striking that there is a lack of comprehensive and systematic studies of these social identities. Instead, some fragmentary areas of investigation have been very well illuminated. Siegrist's (1996) "Effort-Reward-Imbalance" model is the most frequently cited example. The basis of this model is that the effort individuals invest in their occupation needs to be rewarded to a degree perceived as adequate. Siegrist (1996) differentiates between extrinsic (demands, restrictions) and intrinsic (need for control) sources of effort, while mentioning money, esteem, and status control as examples for rewards. Maintaining this balance is important because an imbalance can have serious consequences for employees' physical and mental health of (Braunheim et al., 2024; Kivimaki et al., 2007; Klein et al., 2010; Siegrist et al., 2019).

Another branch of literature deals with recognition concepts from a management perspective (Jacobshagen & Semmer, 2009). Scholars investigate how people in management positions can create a good working atmosphere to motivate their employees to perform well or positively impact their employees' health (Stocker et al., 2014; Vincent, 2012).

More recently, the meaningfulness of work has been discussed through David Graeber's theory of "bullshit jobs" (Graeber, 2020), which introduces a new dimension of job identities. Graeber (2020) assumes that many jobs involve meaningless tasks and that only the appearance of productivity needs to be maintained. Initial empirical studies show (minor) differences in the perceived meaningfulness of one's job across classes (Soffia et al., 2022; Williams et al., 2022). However, there is no evidence that the proportion of meaningless jobs has increased over the past decades or that many consider their jobs meaningless (Soffia et al., 2022).

Finally, there is little explicit research on how occupational or job identities affect societal or political resilience indicators. Mostly, there is only an implicit concern that hospital staff and nurses are more prone to mental illnesses such as burnout or depression due to an effort-reward imbalance, which could jeopardize health care and thus also reduce the resilience of a society. The only exception is an explorative study based on interviews by Beck and Westheuser (2022), in which they conclude that the turn to right-wing parties, especially among working-class occupations, can be explained by violated expectations in the recognition of occupational achievements and needs (L. Beck & Westheuser, 2022).

### 2.5.3 East German vs West German identity

One social identity, that has been the focus of sociological debates in the German context is the division between people who socialized in the former German Democratic Republic (GDR) and the Federal Republic of Germany (FRG). Starting in the 1990s, academics debated whether there was such a thing as a specific East German identity and whether it would only be a temporary phenomenon that would evaporate over time, or whether it would persist after the union of Germany (Gabriel, 2005; Pollack & Pickel, 1998; Westle, 1994). There seems to be a consensus that West Germans tend not to perceive a West German identity, do not identify strongly with it, and therefore do not associate it with any implications for their lives (Kubiak, 2018; Mau et al., 2024; Vogel & Leser, 2020). Remarkably, this is in contrast to the perception of East Germans. In their cohort analyses, Vogel and Lesser (2020) summarize that there is a heterogeneous structure of opinion among East Germans as to whether East German identities exist or not. Some authors emphasize "othering" as an identity-forming strategy: an East German identity is constructed through differentiation and otherness from West Germany (Kubiak, 2018; Mau et al., 2024). This is also passed on to younger cohorts via narratives within networks

and family structures (Mau et al., 2024). Contrary to these assumptions, Westle (2022) finds no evidence that othering has been the main driver of a specific East German identity in recent decades.

Another possible explanation links the construction of a specific East German identity to experiences of devaluation. For instance, Pollack (1997) argued that East German citizens did not feel equal to West Germans and found empirical evidence for this assumption. This feeling of unfair treatment was also linked to the rise in right-wing extremism and xenophobia in the eastern German states (Edinger & Hallermann, 2001).

Decades later, this argument is renewed to explain the sharp distinction between East and West German states concerning voting behavior and attitudes (Deppisch et al., 2022; Haffert, 2022). Several authors argue that the lack of recognition is at least part of the reason why the right-wing radical party AfD is successful and right-wing radical attitudes are widespread in the Eastern states (Hannemann et al., 2023; Hildebrandt & Trüdinger, 2021; Pickel & Pickel, 2020; Salomo, 2019). According to this argument, East Germans feel disrespected and not sufficiently recognized based on their experience through the transformation phase of the union of both German countries – they perceive themselves even as “second-class citizens” (Pickel & Pickel, 2020, p.486). The affected individuals feel that their “lifelong achievements are collectively devalued” (Pickel & Pickel, 2020, p. 486) by the Western Germans. Furthermore, East Germans are disillusioned by traditional political parties and blame them for this development. As a result, they turn towards new parties that masquerade as saviors against other social groups (Pickel & Pickel, 2020).

All these theories and findings indicate that, even more than 35 years after German unification, there are still differences between Western and Eastern Germany reflected in different identities. Steffen Mau also comes to this conclusion, putting forward his “theory of persistent differences” (Mau, 2024, p. 13) between Eastern and Western Germany. Mau (2024) argues that, in addition to structural and historical causes, the emergence of an East German identity and a perceived lack of recognition lead Eastern and Western Germany to drift apart rather than merge. According to Mau (2024), the lack of recognition and the East German identity are major factors contributing to the political resilience of Eastern Germany being at risk.

## 2.6 Summary of theoretical background

In this chapter, I have outlined this dissertation’s most important theoretical concepts and assumptions, which I would like to summarize here. Based on the impressions of the polycrisis (the COVID-19 pandemic, the political crisis of liberal democracy, and the ecological crisis of

climate change), there appears to be a high level of research interest in how individuals, societies, and political systems can withstand these crises. The term “resilience” often comes up in this context and has inspired me to explore how resilience can be strengthened in this dissertation.

Psychological, sociological, and political science perspectives understand resilience as a process in which an original state is threatened and this challenge is successfully overcome. This does not necessarily mean a return to the old state, but can also involve change as a form of adaptation. The object of interest and the factors that promote resilience differ depending on the discipline. Psychology identifies coping strategies, worldviews, and the availability of social resources as determinants of resilience potential. From a political science perspective, the spread of democratic values among citizens and the degree of polarization and inequality in society are most relevant. The sociological perspective, on the other hand, is new in the field of resilience. Accordingly, identifying the causes and effects of social resilience is still vague. Social cohesion is cited as an indicator and a determinant of social resilience.

Social identities are an important source for people to gain or maintain a healthy level of self-esteem. In doing so, they fulfill a cognitive and evaluative function. On the cognitive side, positive social identities guide people to action and a place in the societal figuration. On the evaluative level, social identities enable members of the in-group to increase their self-esteem through comparison with a relevant out-group. Here, perceived recognition is the central evaluation criterion for determining whether the in-group or out-group wins the comparison. According to Fukuyama (2019), the desire for recognition can manifest itself in two ways: people can demand equal treatment in the sense of respect (isothymia) or they can claim to be considered superior and recognized as such (megalothymia).

But how exactly does the recognition of social identities have a positive effect on different forms of resilience? Four different mechanisms can explain how exactly social identities have a positive effect on resilience. First, positive social identities can influence an individual's worldview by reducing fears and uncertainties. Second, positive social identities strengthen experiences of self-efficacy. Third, receiving recognition can be interpreted as a sign of benevolence, which increases trust in institutions. Fourth, recognition can activate norms of solidarity by promoting cooperative and reciprocal behavior through group membership in positive social identities.

Finally, I address the question of which social identities could be relevant in-groups. Due to their significance in socio-economic and cultural terms, I focus on class and occupational

identities. In the German context, socialization in East or West Germany is also a relevant social identity that influences resilience potentials.

With this theoretical framework, I am linking, for the first time to my knowledge, the social psychological literature on SIT (Tajfel & Turner, 2004) with philosophical theories on recognition (Honneth, 1992; Taylor, 2020) and sociological and political science theories on identity formation (Fukuyama, 2019; Mead, 2020) in one coherent approach.

## 3 Methods

This chapter presents the methodological procedure for testing the theoretical framework. Therefore, I will a) discuss the data basis of the empirical papers (3.1) and b) the construction of new item batteries in the respective sub-chapters (3.2). In particular, the proposed measures of recognition of social class identities and occupational and job identities constitute this dissertation project's innovative content in methodological terms.

The development of the survey instruments was a joint effort with my colleagues Martin Groß and Volker Lang. For a detailed project documentation, please refer to the methods report, which is available in German (Babst et al., 2022). I will only examine the most important facts in the following to contextualize the results.

We decided to conduct our own survey to ensure that all the necessary information was available to discuss the various research interests of this dissertation project. The data collection occurred in spring 2021, almost exactly one year after the COVID-19 pandemic changed public life in Germany.

### 3.1 Data

The aim was to draw a sample representative of the labor force of the Federal Republic of Germany with a sufficiently large number of cases ( $n = 2,200$ ) for the desired comparisons between different occupational groups. Self-employed persons and persons from the Eastern federal states are overrepresented in our sample due to their relevance for specific research questions. For the former, who were particularly affected by the restrictions, we aimed to increase their share to 20 percent of the sample. This represented a doubling compared to the actual proportion, providing a sufficient group size to compare with other occupational groups (BMAS (Bundesministerium für Arbeit und Soziales), 2022, p. 19). The second quota concerns the ratio between East and West Germans. In the sample, we aimed for proportions of approximately 60 percent for western Germany and approximately 40 percent for eastern Germany. In analyses of the total population, these quotas are considered with design weights. The service provider Kantar calculated these weights.

Given the size of the questionnaire, we divided it into two parts in order not to overload participants and thus ensure appropriate data quality. At intervals of three to six weeks after participating in the first questionnaire, respondents were asked to participate again in the “second wave” of the survey.

The survey was conducted using computer-assisted web interviews (CAWI). After careful consideration, we chose the “Payback Panel” from the provider “Kantar” to draw a sample. Several advantages over other providers and databases were decisive for this decision. The database provided by Kantar consists of customers of the commercial provider of a shopping point collection system “Payback”, which minimizes the usual selection effects in online access panels due to the size ( $N = 120,000$ ), diversity, and offline recruitment of participants (Kantar Public & WSI (Wirtschafts- und Sozialwissenschaftliches Institut) der Hans-Böckler-Stiftung, 2021). In addition, extensive data quality checks were carried out following the data collection. The database is also regularly checked to ensure that its master data is up to date. Thanks to the cooperation between “Kantar” and the “Socio-Economic Panel” (SOEP), there is also a great deal of expertise in the construction and implementation of complex surveys (SOEP, 2020). The first survey was conducted from February 11, 2021, to March 1, 2021. During this period, we collected 3,162 completed questionnaires. The service provider performed a quality check of the collected data after the survey. In line with best practice methods in survey methodology to assess data quality (Fricker & Tourangeau, 2010; Jaeger & Cardello, 2022; Niessen et al., 2016; Roßmann, 2010), four criteria were used to screen out conspicuous questionnaires: too short interview duration (less than 40 percent of the median value), the proportion of item non-response, conspicuous response patterns in the form of so-called “straightlining” and the plausibility of the information provided on individual variables. After screening out questionable information, 3,102 complete data sets were available after the first “survey wave”. The second survey was completed after just one week in the field (March 24 to March 31, 2021). The target of 2,250 complete questionnaires was reached even before all 3,102 respondents from the first “wave” were sent a link to the second survey, which suggests a high level of thematic interest on the part of the respondents and thus a high level of data quality. Kantar once again carried out quality analyses, after which 2,231 usable cases remained.

### 3.2 Quantifying recognition of social identities

One of the main contributions of this dissertation is to develop a tested instrument to quantify the recognition of social identities. Therefore, we used three social identities of particular interest for the theoretical background of this dissertation: occupational and job identities, social class identities, and East and West German identities, respectively. A literature review of the scales available to date reflects the general, heterogeneous state of quantification of social identity recognition.

### 3.2.1 Social class recognition

A first form of social identity is social class identity. As far as I am aware, no measure of the recognition of social class identities is available. The closest is an instrument by Keefer et al. (2015), but it focuses more on perceived procedural justice regarding social class identities. In this respect, we had to develop a new battery of items. As with the other identities, a distinction must be made between symbolic recognition, which is aimed at universal claims to respect, and recognition of achievements. We have therefore developed four items, two of which address symbolic and two of which address performance-related recognition (Table 2).

Historically grown path dependencies establish a substantive proximity to occupational identities and work. Class identities are defined mainly based on occupational characteristics and socio-economic status, through which they create a shared class consciousness. At the same time, however, the concept of work is changing: care work, for example, can also be understood as the equivalent of employment in the labor force. The performance-related items, therefore, deliberately leave the term “work” open, and one of the two items also mentions the contribution to prosperity, which also leaves room for maneuver. This can also include, for example, the teaching of special values through education.

**Social class recognition:** Different groups receive different amounts of recognition in our society.

How do you rate the status of your own group, to which you have just assigned yourself, in society?

Item text	Source
1) The work of people like us is no longer valued today.	new item
2) People like me used to be more respected.	new item
3) People like me are shown little respect by most others.	new item
4) The contribution of people like us to Germany's prosperity is no longer sufficiently appreciated these days.	new item

Table 2: items to measure social class recognition

### 3.2.2 Occupational recognition

Regarding occupational or job identities, the current state of available measurement scales shows no distinction between job identity in the immediate work environment and general identity in a particular occupational group. In this respect, our first contribution in this field is to make this distinction.

The literature search did not produce any available scales in connection with the identity of the occupational group as a collective. Thus, we created items and tried to capture different aspects of recognition. As a general measure, we are interested in the perceived level of recognition the

occupational group receives from society, politicians, and the public in general<sup>5</sup>. The recognizer is as general as possible, yet we distinguished between different forms of recognition that all capture the isothymia idea of Fukuyama (2019). Beginning with the general sub-dimension of respect (item 2 in Table 3 below), we accentuated recognition for performances in the working context, as this sub-dimension should be pronounced in the context of occupations. Besides a general recognition that can be understood as praise for the work that the occupational group has done (item 1), we refer to the financial rewards and compensation (items 3 and 6) as wages and income, which are the instruments to weigh work adequately by the logic of liberal markets. Lastly, we are interested in whether people feel that their occupations' needs are seen and their voices are heard by politicians (item 5) and in public debates (item 4).

**occupational recognition** – There has been a lot of talk about the recognition of occupations during the coronavirus crisis. How do you rate the level of recognition of your occupation to-day? My occupation...

Item text	Source
1)...is recognized for its work in society.	new item
2)...receives the recognition it deserves from society.	new item
3)...deserves a significantly higher income for the type of work I do.	new item
4)...is ignored by the public.	new item
5)...receives the attention it deserves from politicians.	new item
6)...is underpaid on average.	new item

Table 3: items to measure occupational recognition

Furthermore, we collected more specific information about how respondents felt their occupational group was treated during the first year of the pandemic (Table 4). The initial phase of the pandemic was an external shock that may have influenced the recognition hierarchy in a particular way. In order to check whether this thesis, which was widely discussed politically and socially, is correct, we needed to integrate a corresponding item scale.

<sup>5</sup> It can be assumed that different sources of recognition are relevant to people to varying degrees. Given the short preparation time for the survey and the dynamic nature of the pandemic at the start of the project, there was no opportunity to conduct a pre-test to verify this assumption systematically. In their BMBF-funded follow-up project, my colleagues Martin Groß, Volker Lang, and Stephanie Jütersonke investigated this question, among others. For further information, please visit the project homepage: <https://uni-tuebingen.de/de/211273>

### occupational recognition – COVID-19 specific items

And if you think about the current situation during the COVID-19 pandemic.  
I think my occupational group...

Item text	Source
1)...is being left alone with its problems by politicians during the pandemic.	new item
2)...is not sufficiently perceived by society as essential.	new item
3)...was ignored by politicians when it came to paying out aid during the pandemic.	new item

Table 4: items to measure occupational recognition with a specific focus on COVID-19 policies

Lastly, for the same reasons mentioned in the previous paragraph, we were interested in whether people felt any changes in how their occupational group was treated at the data collection point compared to exactly one year before, the month before the pandemic affected public life in Germany. We used the same sub-dimension as in the general occupational recognition measure (Table 5).

**change in occupational recognition over the course of the pandemic:** How do you think the following aspects of your occupation have improved or worsened during the COVID-19 crisis?

Item text	Source
1) The recognition of my occupation by society	new item
2) The appreciation of the work that is done in my occupation	new item
3) The perception of my occupation in the public debate	new item
4) The average pay of my occupation	new item
5) The consideration given to my occupation by politicians	new item

Table 5: items to measure change in occupational recognition

In addition to isothymia, we also attempted to measure the perceived megalothymia of the occupational group. This concept has not yet been translated into empirical scales. Since occupational groups are very heterogeneous and there are also major differences within occupations in terms of the potential dimensions of the task profile that can serve as a basis for perceived superior performance or relevance of one's own occupational group, we limited our survey of megalothymia to a global measure. Accordingly, we asked participants whether they felt their occupation was more important to society than most other occupations. If respondents selected at least the middle category on the five-point response scale, we asked them a follow-up question about whether they thought their occupation was also appropriately recognized for this superiority. Of a total of 3,102 respondents, 1,921 answered the first question in such a way that they were also asked the follow-up question.

### **megalothymia occupational group:**

Item text	Source
1) How important do you consider your occupation to be in comparison to other occupations? My occupation is more important to society than most other occupations.	new item
2) (follow-up question): And when you think about the recognition your occupation receives, to what extent do you agree that society adequately recognizes that your occupation is more important than most others?	new item

*Table 6: items to measure megalothymia of the occupational group*

#### 3.2.3 Job recognition

Turning to job recognition, we found items that had already been tested and had quantified job recognition. This primarily concerns the rewards received for services rendered or commitment shown, and interpersonal interaction in the job context. In particular, Siegrist's Effort-Reward-Imbalance scale (1996) proved helpful here. When measuring the job dimension, it is important to ensure that the wording applies to various occupational situations. In this respect, we took three different perspectives into account when asking about this dimension of recognition: The perspective of employers, employees, and the perspective of the self-employed. Depending on the perspective, the group of recognition providers differs. For employees, the recognition of superiors is arguably most important. Conversely, people in managerial positions do not necessarily have superiors themselves, which is why assessing colleagues is more important. While these differences can be offset to a certain extent by listing general examples in the question text, the self-employed face the additional difficulty of not having any colleagues who can give them recognition. However, recognition from customers, clients, or patients is all the more important - this can indicate satisfaction with one's own performance. Customer satisfaction, in turn, is central to customer loyalty and thus to professional survival. In view of these differences, the self-employed were given separate formulations.

Lastly, we tried to distinguish two recognition dimensions with regard to job identities. The first component measures whether respondents feel respected and recognized in interpersonal interactions. This dimension relates to symbolic gestures and “soft” recognition criteria (Table 7). We differentiate that from a reward dimension that concentrates on “hard” criteria such as an appropriate income or the chance of elevating one’s social status (Table 8).

## Isothymia in job

**Self-employed/employers:** How well is your work recognized by your direct working environment (for example, by customers, clients or patients)?

**Employees:** How well is your work recognized by your direct work environment (for example by superiors, colleagues or customers)?

Item text	Source
1) I receive the recognition I deserve.	similar to Siegrist 2016
2) I am treated fairly and justly.	Hinding 2012 et al.
3) I am praised when I do my tasks well.	Jacobshagen et al. 2008
4) My knowledge and skills are valued.	new item

Table 7: items to measure job recognition

**Rewards in job:** When I think of all my achievements and efforts, I consider...

Item text	Source
1)... the recognition I have received to be appropriate.	Siegrist 2016
2)... my personal chances of career advancement to be reasonable.	Siegrist 2016
3)... my income to be reasonable.	Siegrist 2016

Table 8: items to measure rewards dimension of job recognition

Parallel to occupational recognition and for the same reasons, we are interested in the question of whether respondents reported a change in the perceived level of job recognition at the point of participation in the survey compared to the time exactly one year ago, equaling the month before the Covid-19 pandemic hit Germany (Table 9).

**Change in job recognition over the course of the pandemic:** How do you think the Covid-19 crisis has improved or worsened the recognition of the following aspects in your working environment?

Item text	Source
1) The recognition of my performance	new item
2) The prospects for my occupational advancement	new item
3) The appreciation of my commitment	new item
4) The recognition of my problems	new item
5) The Appreciation of my qualifications	new item
6) Respectful treatment	new item

Table 9: items to measure the change in job recognition

We also aimed to measure job megalothymia for the first time for job recognition. However, in contrast to megalothymia in the occupational group, we took a different approach to job megalothymia in two respects.

On the one hand, we decided it made sense to distinguish between superiority in specific dimensions for a specific job, which is why we did not conduct a global measure. Instead, we asked about the perceived added value of one's job compared to other jobs in terms of better

results, higher qualifications, more important contributions to the company, and faster completion of tasks.

On the other hand, it is imperative to distinguish between different positions regarding specific items. There are several reasons for this. Self-employed people have a different motivation to perform their occupational activities as well as possible than employees. Self-employed people compare their performance with competitors in their industry to have as many satisfied customers as possible and thus secure their own livelihood. On the other hand, employees tend to compare their performance with their colleagues. In order to take these differences into account, the question's wording varied depending on occupational status.

**Job megalothymia:**

Self-employed: How would you rate yourself in comparison to your competitors?

Employees: How would you rate yourself in comparison to your colleagues?

Item text	Source
1) I achieve better results than others.	new item
2) I contribute more to the company than others.	new item
3) I am better qualified than others.	new item
4) I complete tasks faster than others.	new item

*Table 10: Job megalothymia, assessment of superiority*

As with the occupation megalothymia, a follow-up question was asked about the perceived recognition of this superiority depending on the response. Only those who selected at least the middle response category on the five-point scale were asked the corresponding follow-up question – but only for applicable subdimensions. For example, if employees agreed that they completed tasks faster and better than their colleagues, they were then asked follow-up questions about their perceived recognition of these two items. If, on the other hand, the employee (rather) disagreed that they were better qualified or that their performance was more important to the company, they did not receive any follow-up questions about the perceived recognition.

Finally, depending on their occupational status, there were differences in how often we asked respondents about their perceived recognition and who served as the source of recognition. Self-employed individuals were only asked to evaluate the recognition they received from their customers. On the other hand, employees were asked about their perceived recognition by their colleagues and superiors.

### Job megalothymia:

Self-employed: And do you think that your customers (or clients or patients) sufficiently recognize your qualities? My customers (or clients or patients) sufficiently recognize that...

Employees:

- 1) And do you think that your superiors sufficiently recognize your qualities? My superiors sufficiently recognize that...
- 2) And when you think about how you interact with your colleagues: My colleagues sufficiently recognize that...

Item text	Source
1)...I achieve better results than others.	new item
2)...I contribute more to the company than others.	new item
3)...I am better qualified than others.	new item
4)...I complete tasks faster than others.	new item

Table 11: Job megalothymia perceived recognition

### 3.2.4 East and West German recognition

There is already a proposed instrument for measuring recognition related to an East or West German identity, which Heitmeyer et al. (2013) present in their collection on “group-related misanthropy” measures. Given this available template, we did not consider it necessary to develop a new instrument. Instead, we selected specific items from the existing pool that we expected would remain relevant today. Below in Table 12, I collected the five formulations used by Heitmeyer et al. in their 2008 survey. These formulations that East German respondents received suggest a lack of recognition from the East German perspective. People who identified as West Germans received analogous formulations that assume a lack of recognition from a West German perspective. We used the four items marked in green for our survey and varied the respective wording according to the respondents' self-identification.

Original item texts of survey from Heitmeyer et al. wave of 2008
1) The reunification has brought many disadvantages for East Germans.
2) Somehow, East Germans are 2nd class citizens.
3) The achievements of the East Germans in building up the new federal states are not appreciated enough.
4) West Germans make too little effort to understand the situation of East Germans.
5) East Germans are disadvantaged compared to West Germans.

Table 12: East-West German recognition by Heitmeyer et al. (2013), own translation based on original formulations in German

### 3.3 Contribution of empirical studies: how is each paper connected

To conclude the methodology section and transition to the empirical papers, I would like to explain in this subsection how the three papers that follow in the next chapter can contribute to the discussion of the overarching research question regarding the recognition of social identities as a potential outlet for strengthening resilience. To this end, I would first like to discuss the

concept of resilience from Chapter 2.1, in which I summarize that the concept of resilience is not clearly defined either interdisciplinarily or intradisciplinarily. The three empirical papers consider this limitation by each focusing on a different social crisis and examining the extent to which the recognition of different social identities is related to indicators of resilience in the respective area of society.

Paper one uses the COVID-19 pandemic as an experimental setting. This health crisis quickly proved to be a test for the economy, society, and politics. In the wake of this crisis, societies that successfully implemented infection control measures were considered resilient. Accordingly, compliance with these measures at the individual level was a valuable indicator for measuring society's resilience. The more compliance individuals demonstrated both at work and in response to political measures, the slower Covid-19 should have spread. The first paper, entitled "Occupational recognition during the Covid-19 pandemic: differences between occupational groups and the association with compliance with infection control measures", examines how the recognition of occupational identities affects compliance with infection control measures. In addition to the substantial research interest, I test the methodological premise that occupational recognition should be distinguished into two forms. The expectation is that job and occupational recognition have distinctive effects depending on the context. I argue that job recognition, which individuals receive from their immediate work environment, has a positive effect on compliance with infection control measures in their workplace. Both measures aim at the micro-level of direct interactions. At the same time, positively perceived recognition at the macro level—especially by politicians as actors and the occupational group as a frame of reference—should lead to increased compliance at the macro level, i.e., compliance with politically mandated infection control measures. If I can find these assumed correlations, this would indicate that the recognition of social identities is an effective measure for increasing societal resilience.

In the second paper, I focus on political resilience by using the spread of populist attitudes as an indicator of the resilience of liberal democracies. Populist movements are designed to enforce a supposedly existing "common will" of the honest people against a corrupt elite (Mudde, 2004; Mudde & Rovira Kaltwasser, 2019). This contrasts with liberal and representative democracies, in which representatives are usually declared the elite and thus the enemy by populist actors, while the definition of the ordinary people often excludes certain minorities and social groups (Mudde & Rovira Kaltwasser, 2018, 2019). Paper two examines how the recognition of the three social identities (social class identities, occupational identities, East/West

German identities) can help prevent or at least mitigate the adoption of populist attitudes. I assume that social groups that feel unrecognized in the political and social context, feel left alone with their problems, and experience a sense of loss of control and status are more inclined to adopt populist attitudes. If this assumption is correct, it would mean that the recognition of social identities could be a tool for strengthening political resilience.

Finally, in the third paper, I focus on the ecological crisis of climate change. Like the pandemic, this crisis is caused by external factors over which individuals have little control. This makes it all the more important for societies and political decision-makers to provide guidelines for action that help slow down climate change and preserve the foundations of human life. Therefore, accepting these politically mandated measures is crucial to ensuring that the policies are implemented and that climate protection can be pursued more effectively. Paper three, therefore, examines how the recognition of social identities can increase the acceptance of climate change mitigation policies. The argument is that people who feel respected by politics and society and whose problems and needs are acknowledged are more willing to accept climate change mitigation measures, even if these involve personal restrictions.

The empirical papers are intended to expand the current state of research in several respects. I show that the recognition of social identities influences various preconditions and/or indicators of resilience and provide empirical evidence for my theoretical framework. In contrast to earlier studies and theoretical remarks, these contributions aim to combine a theoretical foundation with specific empirical research in one coherent manner.

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## 4 Results

#### 4.1 Results paper I: Occupational recognition during the Covid-19 pandemic

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## Occupational recognition during the Covid-19 pandemic: differences between occupational groups and the association with compliance with infection control measures

Berufliche Anerkennung während der Covid-Pandemie: Unterschiede zwischen Berufsgruppen und der Zusammenhang mit Compliance mit Infektionsschutzmaßnahmen

<https://doi.org/10.1515/zsr-2022-0112>

**Abstract:** This paper examines two research questions. First, we investigate whether specific occupational groups experienced changes in the recognition they received during the Covid-19 crisis. Second, we analyse whether occupational recognition can promote compliance with infection control measures. In addition, we distinguish between a micro-level of job recognition and compliance in the direct working environment on the one hand and a macro-level of recognition of occupational groups and general acceptance of infection control measures on the other. We find that health care occupations and “basic occupations” (essential occupations that do not require formal training) report an increase in recognition received by society during the pandemic, but still perceive the lowest levels of recognition overall. These groups also report lower levels of political recognition and do not feel adequately remunerated. Furthermore, occupational recognition has a positive impact on compliance with infection control measures. We identify institutional trust as the most important mediator. While occupational recognition in the immediate work environment has the greatest impact on micro-level compliance at the workplace, occupational recognition at the macro-level is relevant for accepting closures of public facilities, various restrictions and the intention to get vaccinated.

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**Keywords:** occupational recognition, job recognition, essential work, compliance with infection control measures, Covid-19 vaccination

**Zusammenfassung:** Dieser Beitrag thematisiert zwei Forschungsfragen. Erstens untersuchen wir, ob bestimmte Berufsgruppen Veränderungen hinsichtlich ihrer Anerkennung während der Covid-Krise erfahren. Zweitens analysieren wir, ob berufliche Anerkennung die Compliance mit Infektionsschutzmaßnahmen fördern kann. Dabei unterscheiden wir zwischen einer Mikroebene der Job-Anerkennung und Compliance im unmittelbaren Arbeitsumfeld auf der einen Seite und einer Makroebene der Anerkennung der Berufsgruppe und der generellen Akzeptanz von Infektionsschutzmaßnahmen auf der anderen Seite. Beschäftigte in Gesundheits-/Pflegeberufen sowie in „Basisarbeit“ (Tätigkeiten, die keine Qualifizierung erfordern) berichten einen Anerkennungszuwachs seitens der Gesellschaft während der Pandemie, nehmen insgesamt aber nach wie vor das geringste Ausmaß an Anerkennung wahr. Diese Berufsgruppen empfinden zudem die politische Anerkennung als gering und halten ihren Beruf für unterbezahlt. Zudem zeigt sich, dass berufliche Anerkennung einen positiven Einfluss auf die Compliance mit Infektionsschutzmaßnahmen hat. Institutionenvertrauen erweist sich als wichtigster Mediator dieses Zusammenhangs. Während die unmittelbar erfahrene Anerkennung im direkten Arbeitsumfeld den größten Einfluss auf die Compliance am Arbeitsplatz und damit auf die Mikroebene hat, erweist sich die Anerkennung der Berufsgruppe als relevant für die Akzeptanz von Schließungen öffentlicher Einrichtungen und Einschränkungen sowie die Impfbereitschaft.

**Schlüsselwörter:** berufliche Anerkennung, Systemrelevanz, Basisarbeit, Compliance mit Infektionsschutzmaßnahmen, Covid-Impfungen

## 1 Introduction

The risk of being infected with Covid-19 is unevenly distributed across occupational groups (Bauer et al. 2021; Fessler et al. 2021; Green/Semple 2021; Mutambudzi et al. 2021). People in occupations that pose a high risk of infection – because of e. g., physical closeness to others, contact with infected individuals, no possibility for remote working – particularly rely on the solidarity of others to protect themselves from a Covid-19 infection. “Solidarity” means that people adhere to prescribed protective measures both at the workplace and in everyday life, thereby reducing the overall infection rate and lowering the individual risk of an infection. Therefore, affected

employees as well as employers and political actors have a great interest in identifying mechanisms motivating compliant behaviour.

Most recently, studies have reported that societal recognition of social identity categories (such as occupational groups) contributes to the formation of attitudes (Droste 2019; Groß 2021). These findings indicate that positive evaluations of social identity categories may also increase compliance with infection control measures. In the context of the coronavirus crisis, the question arises of the extent to which social recognition can enhance or discourage solidaric behaviour.

One focal point during the pandemic was the recognition of occupations. Germany provides an interesting case study: strict restrictions at the very beginning of the pandemic effectively banned certain occupational activities and closed down certain sectors. Legislators decided which occupations were essential for maintaining infrastructure and which were not. This had a variety of implications for financial security and health risks, but it also created a new category of social inequality of occupations and affected the perceived order of occupational recognition (Mayer-Ahuja 2021).

This paper aims to answer two research questions. First, it examines the extent to which social recognition among different occupations changed during the Covid-19 pandemic. Second, it analyses the impact of occupational recognition on compliance with and acceptance of infection control measures. We structure our analyses along three hypotheses and generally assume a positive relationship between occupational recognition and compliant behaviour. We differentiate two levels of occupational recognition and compliance at the micro- and macro-level. Regarding the micro-level, we look at the job recognition an individual receives in their immediate working environment and how this affects compliance at the workplace. Regarding the macro-level, we measure the perceived recognition of occupational groups and how this relates to supporting mitigation policies. We base our analyses on cross-sectional data that we collected about a year after the pandemic reached Germany in February and March 2021. Our sample is representative of the German working population.

## 2 Theoretical framework

The significance of social recognition and its effects have been discussed in various scientific disciplines. Honneth argues in the tradition of Hegel that the desire for recognition is a universal basic human need (Honneth 1992). Tajfel and Turner underpin the importance of social identities and the desire for their recognition within the framework of their “Social Identity Theory” (SIT, Tajfel/Turner 1979).

They postulate that people strive for a positive social identity because it enhances self-esteem and provides feelings of self-efficacy. A positive social identity is established when the group that individuals assign themselves to within a particular social category (the “in-group”) is positively evaluated in comparison to relevant other groups of people in said social category (the “out-groups”, *ibid.*). From a sociological perspective, the work of Mead highlights the great relevance of social identities, since they guide humans in societal contexts, which is a basic requirement for their ability to act (Mead 1973).

Occupations are the central dimensions of the social recognition order in market societies since the dominant mode of resource distribution in such societies is labour income (Konietzka/Berger 2001). However, ascribed recognition differences between occupations go far beyond material endowments. Even before the pandemic, Reckwitz (2019) argued that there is a large discrepancy in the attributed reputation between occupations, making occupation an identity-creating category. Goos and Manning (2003) distinguish between “lovely jobs” and “lousy jobs”. While the former are associated with positive attributes such as creativity, innovation and intellect, the latter are repetitive, physically demanding and associated with low economic security. Scholars have extensively attempted to rank occupations in a quantifiable order, addressing the “subjective” as well as the “objective” or “hard” rewards of occupations, mainly in terms of “prestige”. Treiman (1976: 289) described prestige as “the metric of moral worth, and the moral worth of positions reflects their control over socially valued resources and rewards, that is, their power and privilege”, thereby combining both aspects of occupational rewards.

However, we argue that “social recognition” and “prestige” tap into different aspects of occupational identities. “Prestige” captures an external perspective: prestige scores reflect the population averages of rating the “moral worth” of occupations, thus establishing an “objective” ranking of occupations. “Social recognition” instead emphasises the internal perspective of evaluation: subjectively perceived recognition derives from the evaluation of interactions with relevant actors in the occupational context. Depending on the kind of occupational recognition, relevant actors can be either specific individuals in the work environment (for example, supervisors, co-workers, customers, etc.) or abstract entities such as institutions. “Recognition” refers to the individual experience of “moral worth” that is expressed in those interactions. Thus, a person in a low-prestige occupation can feel highly recognised.

In Germany, the importance of occupations as a source of social recognition was particularly evident in the initial phase of the pandemic, when certain occupational groups were categorised as “essential”. This categorisation was, first, an explicit assessment by official decision-makers of the importance of specific occupational groups for upholding critical infrastructure. Second, this classification was linked

to the political restrictions on rights and the assignment of special responsibilities. Third, the effects of policies varied across occupational groups (Flisi/Santangelo 2022). At one end of the spectrum, workers in health care and nursing occupations, as well as workers in food retail and logistics – so-called “base workers” – faced an increased workload and more difficult working conditions due to a disproportionately higher risk of infection (Fessler et al. 2021; Green/Semple 2021; Mutambudzi et al. 2021). Other occupational groups, including many with high numbers of self-employed, were prohibited from working and suffered severe financial penalties (Hövermann 2020; Immel et al. 2022). In contrast, higher-qualified occupational groups were able to work from home, minimising losses of earnings and infection risks (Adams-Prassl et al. 2020; Cetrulo et al. 2020; Fessler et al. 2021).

Overall, the political classifications interfered with the recognition hierarchy of occupations by classifying them as (non-)essential and by impacting them unevenly. A central question of this paper is therefore whether this “external shock” to the recognition order has left a lasting impression on people’s own perceptions in the medium term and whether this is particularly true for certain occupations. Of even greater interest is to what extent occupational recognition impacts compliance with infection control measures. We identify four overarching mechanisms through which occupational recognition could have a positive impact on compliance.

## 2.1 Increasing self-esteem and self-efficacy

First, social recognition strengthens self-esteem (Tajfel/Turner 1979) which in turn strengthens self-efficacy beliefs (Guan/So 2016; Cameron et al. 2018). Feelings of self-efficacy can increase the perception that personal actions have an influence on the course of the pandemic (Jørgensen et al. 2021; Scholz/Freund 2021; Clark et al. 2022). Moreover, recognition provides information about a person’s standing and its impact on potential support from society: a recognised person is more likely to feel respected and to expect support from society, which would increase their willingness to comply with infection control measures. Accordingly, higher levels of occupational recognition should motivate compliance with mitigation measures.

## 2.2 Weakening of (economic) threat perceptions

Second, it is likely that social recognition has an impact on threat perceptions. Individuals may feel threatened by the pandemic in two ways: first, because they fear an infection with the SARS-COV-2 virus and, second, because they feel threatened by the restrictions from an economic perspective (Hövermann 2020; Wright et al.

2020; Fetzer et al. 2021; Immel et al. 2022). The latter aspect could be mitigated by social recognition due to the solidarity expectations mentioned above: those who feel that their occupation is valued and recognised are likely more confident that they will receive financial support. Accordingly, these solidarity expectations might make restrictions seem less economically threatening and thus increase willingness to comply.

## 2.3 Signal of benevolence

Third, social recognition signals the benevolence of the recogniser. Benevolence is an important component in building trustworthiness (Mayer et al. 1995; Tanis/Postmes 2005). Therefore, we assume that those who feel valued by the decision-making institutions are also more likely to trust their decisions. Previous studies have shown that institutional trust is a strong predictor of compliance (Murphy et al. 2020; Caplanova et al. 2021; Nivette et al. 2021; Pak et al. 2021; Pavela Banai et al. 2022; Schmelz 2021; van Vu 2021; Schumpe et al. 2022; Seyd/Bu 2022). Institutional trust is also a predictor for willingness to get vaccinated (Lazarus et al. 2021; Lindholt et al. 2021).

## 2.4 Collective responsibility, activation of reciprocal action and solidarity norms

Furthermore, expectations of solidaric support can activate reciprocity (Drury et al. 2016). Following this approach, we expect social recognition to increase compliance with infection control measures by subsuming compliant actions as an act of reciprocity. In the case of the pandemic, this means that people who feel more recognised are more likely to comply with rules to protect others from infection. The state of research shows that a pronounced sense of duty to adhere to solidarity norms is an important predictor of compliant behaviour (Pfattheicher et al. 2020; Kittel et al. 2021; Schumpe et al. 2022), or conversely, a lack of a sense of duty is characteristic for people who do not comply with infection control measures (Nivette et al. 2021).

Based on these four mechanisms, we assume:

**Hypothesis 1 (H1): Occupational recognition increases compliance with infection control measures.**

However, as recognition influences compliance in part indirectly via the mechanisms outlined above, we also argue:

**Hypothesis 2 (H2): The association between occupational recognition and compliance with infection control measures is mediated by covariates such as threat perceptions, institutional trust, and norms for solidarity.**

We distinguish two different forms of occupational recognition. At the social micro-level, employees can feel recognised in their direct work environment. At the macro-level, employees can also perceive recognition for their occupational group from entities such as political and societal institutions. Equivalently, we distinguish indicators for compliant behaviour in terms of two levels: first, compliance with infection control measures at the workplace (“micro-level compliance”) and, second, general acceptance of politically prescribed infection control measures (“macro-level compliance”). While both levels of compliant behaviour matter, infection control measures at the workplace account only for a low proportion of social contacts and infection potential. In this respect, it is important for occupational groups with a higher risk of infection that the general population practises social distancing and gets vaccinated to minimise the incidence of Covid-19 infections.

Based on these distinctions, we assume that the recognition received at the micro-level of the workplace is especially relevant for compliance in the immediate work environment (“micro-level compliance”). Conversely, the recognition of the occupational group experienced at the macro-level should signal benevolence of societal institutions and therefore most strongly influence the willingness to approve politically prescribed infection control measures (“macro-level compliance”). To test this assumption, we apply indicators for both micro- and macro-level compliance, as well as for workplace recognition (micro-level) and general occupational recognition (macro-level). We build on these considerations in our third hypothesis:

**Hypothesis 3 (H3): The relationship between occupational recognition and compliance with infection control measures exhibits a micro-macro pattern:**

- a) **The level of job recognition (micro-level recognition) an individual receives in their immediate work environment has a strong influence on compliance in the immediate work context (micro-level compliance).**
- b) **The extent of general recognition the occupational group receives (macro-level recognition) has a higher influence on the acceptance of politically prescribed infection control measures (macro-level compliance).**

## 3 Data and methods

### 3.1 Data

We conducted an online survey in February and March 2021 specifically addressing the pandemic and its impacts on occupations. We used an access panel from a commercial provider, making use of their large database of participants recruited offline, thus enabling accurate quota control. A representative sample of the working population in the Federal Republic of Germany was drawn with a case number ( $n = 2,231$ ) that allowed for the intended group comparisons between occupations. We oversampled the self-employed, who were particularly affected by the Covid-19 restrictions, with the aim of increasing their share to 20 percent of the sample, i. e., about twice the share of self-employed in the target population (BMAS 2022: 19). A further quota concerned the ratio between East and West Germans. In the sample, about 60 percent are West German residents and about 40 percent are East German residents. In analyses based on the total population, design weights account for quotas. Table A1 in the appendix compares the demographic composition of our sample with the respective characteristics of Germany's labour force.

After handling missing information by case-wise deletion, 1,444 persons remain in the sample for the multivariate analyses. Tables A2 and A3 in the appendix include the wordings of our items and demonstrate that the distributions of variables are largely not affected by this treatment of missing information. Furthermore, we z-standardised all metric variables in order to conduct effect size comparisons.

### 3.2 Variables and analytical strategy

To address the first research question on changes in occupational recognition, we distinguish nine occupational groups based on the level of necessary entry qualification as well as the official classification of the occupation as essential or not. These nine groups are: health care workers; self-employed with non-essential jobs; self-employed with essential jobs; occupations requiring a high level of education and with non-essential status; occupations requiring a high level of education and with essential status; occupations requiring a medium level of qualification and with having non-essential status; occupations requiring a medium level of education and with having essential status; occupations not requiring formal training and with non-essential status; and lastly, occupations not requiring formal training but necessary jobs – so called “base workers” (Babst et al. 2022a).

### Explanatory variables

Due to a lack of established scales for measuring occupational recognition, we generated items ourselves and tested these extensively in pretests. Respondents were asked up to 49 compulsory questions about the recognition their occupation receives. Participants could rate the statements using a five-point Likert scale. We used factor analyses to extract seven factors, five of which we use for the following analyses. “Recognition\_occupation” comprises the societal recognition of the occupation and contains answers to statements such as “my occupation receives the recognition it deserves from society”. “Recognition\_financial” includes statements such as “My occupation is underpaid on average”. “Recognition\_political” refers to the perceived recognition of the respondent’s occupation during the pandemic based on statements like “My occupation and its problems have been ignored by politicians during the pandemic”. We measured the immediate recognition in the direct work environment, “Recognition\_job”, with statements such as “I get praised when I do my tasks well”. For the descriptive analyses, we use the factor “Recognition\_change”, which contains assessments of the extent to which the social recognition of the occupational group had changed by the time of the survey compared with the previous year. The midpoint on the five-point scale meant no change. We outline the precise wording of all statements as well as the loadings and communalities of the five factors in table A4 in the appendix. The five variables showed moderate intercorrelations (0.34 to 0.5), which indicates that we measured distinct concepts that are related to each other (Babst et al. 2022b).

### Dependent variables

We use two items to capture compliance at the workplace (micro-level compliance). On the one hand, the respondents’ subjective assessment of their own rule compliance at the workplace (seven-point Likert scale) and, on the other hand, their preferred extent of workplace measures (five-point Likert scale). Since responses to the first question may be influenced by social desirability, the second item is used for validation.

For overall societal compliance (macro-level compliance), we use two factors on the approval of politically prescribed measures as well as the stated intention to get vaccinated. The two factors were extracted from five items using exploratory factor analyses. The first factor, “Overall\_measures”, includes information on the extent to which respondents are willing to restrict their travel and to support retail and restaurant closures to curb the infection rate. The second factor, “Closing\_schools”, combines respondents’ approval or disapproval of school and daycare closures. We

report the results of our factor analyses in appendix (A5). Finally, we use a single item to measure whether respondents intend to get vaccinated against the SARS-COV-2 virus.

### Mediators

To test hypothesis H2, we use several variables that mediate the relationship between the explanatory and the dependent variables.

*Economic threat:* economic threats include a standard measure of relative deprivation (5-point Likert scale), an item on satisfaction with the respondent's financial situation (5-point Likert scale), and a factor based on three items of perceived job security – one example being: “I'm afraid that I won't be able to meet the challenges of digitisation.”

*Perceived infection risk:* furthermore, we asked whether respondents had been infected with the virus in the past and whether they consider themselves to be at risk of a severe Covid-19 infection.

*Institutional trust:* Two factors on institutional trust based on standard scales distinguish between a dimension for trust in political institutions and a dimension for trust in general institutions with higher scores indicating stronger institutional trust.

*Collective responsibility:* We operationalise solidarity norms through a factor based on four items developed within the project, for example: “We should be more considerate of each other”. A high score represents a comparatively high sense of collective responsibility.

### Controls

*Demographic characteristics:* age (18 to 67 years) as well as dummy variables on gender, migration status (respondent or at least one parent was not born in Germany) and inner-German socialisation (self-identification as East or West German) are used to account for demographic characteristics.

*Socio-economic characteristics:* In addition, objective characteristics of socio-economic status are included in some models. These are the respondents' occupational groups, which were also used for the first research question (Babst et al. 2022a), a categorical education variable (low, medium, high), categorical information on possible changes in income during the Covid-19 pandemic, information on whether the respondent's employment contract was temporary, and the type of employment relationship (full-time/part-time or irregular/short-time or temporary

leave). To account for pandemic-specific developments in the workplace, we added information on possible changes in working hours, working from home, a possible change in working hours in remote work, and the number of measures taken at the workplace.

*Further controls:* three further indicators are used to capture psychological burden. One item covers the subjective assessment of infection risk through increased contacts at work. A second item captures the general risk assessment of becoming infected at work. Furthermore, we extracted a factor to cover the psychological burden from the measures in general. All corresponding items were collected using a five-point Likert scale, with a high score indicating an increased level of distress.

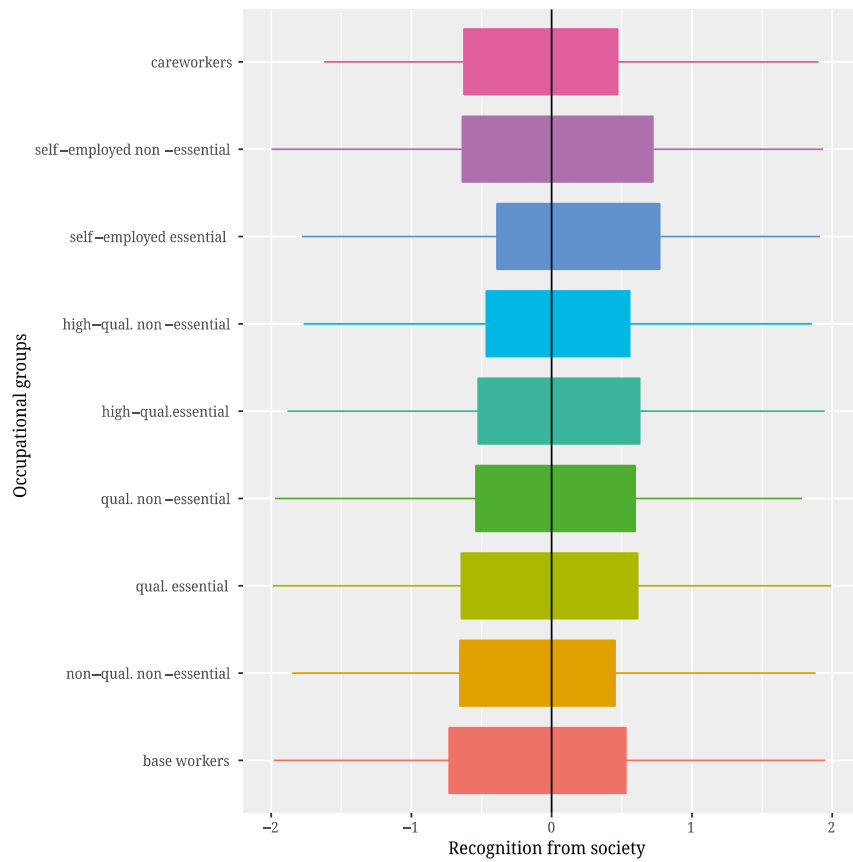
### Analytical strategy

To answer the first research question, we look at the results of descriptive analyses split by nine relevant occupational groups.

Regarding the second research question, we compute multivariate linear regression models which sequentially include independent variables. Model 1 (M1) tests the first hypothesis (H1) and contains only bivariate regressions to estimate the gross effects of occupational recognition on the different dependent variables. In the next step, we include our control variables that account for demographic and socio-economic characteristics (M2). Beginning with the third model, we integrate possible mediators of the association between occupational recognition and compliance with infection control measures: economic threat and health risks (M3), institutional trust (M4) and collective responsibility (M5).

## 4 Results

The first research question asks whether social recognition changed for certain occupational groups during the Covid-19 pandemic. If so, two additional questions emerge: 1) which occupational groups stand out, and 2) are these groups more likely to report improvements or deteriorations in their social recognition? These questions will guide section 4.1. We conducted the survey one year after the Covid-19 pandemic reached Germany and asked respondents to compare their current level of perceived recognition to the month of February 2020, which was the month before the outbreak in Germany. Respondents could state changes in terms of pay, perceived praise, and respect.



**Fig. 1a:** Current level of occupational recognition from society

We then examine how occupational recognition 1) affects compliance with infection control measures at the workplace (micro-level compliance, section 4.2) and 2) what associations we observe with the perceived legitimacy of politically prescribed infection control measures and the willingness to get vaccinated (macro-level compliance, section 4.3).

#### 4.1 Changes in occupational recognition

The boxplots of the factor scores in figure 1a show that base workers and nursing professions stand out negatively. Compared to the other occupational groups, members of these two occupational groups tend to report that they do not feel

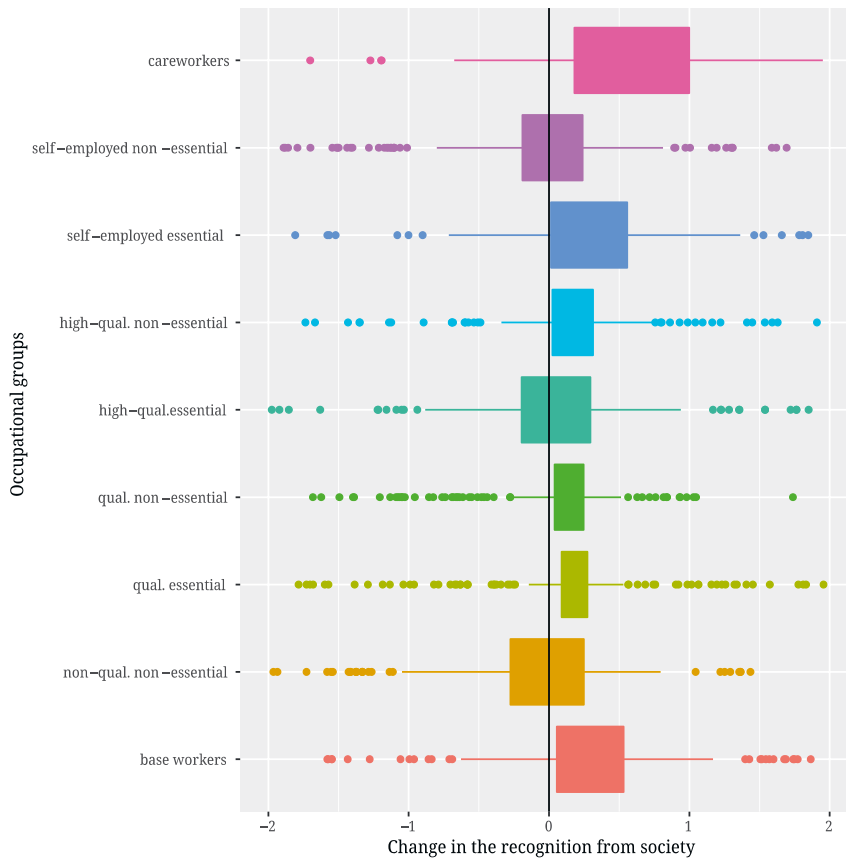
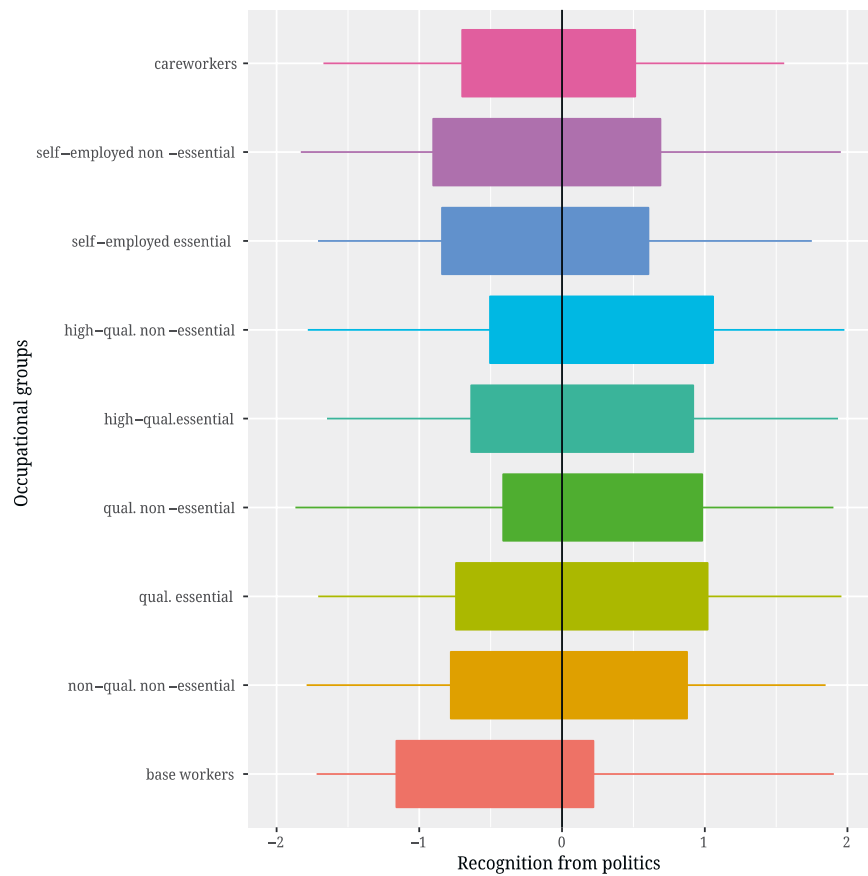


Fig. 1b: Perceived change of occupational recognition from society over the course of the pandemic

recognised at the time of the survey. Overall, the graph shows that recognition is distributed according to socio-economic stratification: the higher the level of qualification required, the more likely people are to feel recognised.

But did employees in these occupations perceive a rise in societal recognition during the Covid-19 pandemic? Figure 1b compares the change in societal recognition for the nine occupational groups, again showing factor scores of “Recognition\_change”.

Again, nursing professions and base workers stand out: first, compared to the other occupational groups, workers in nursing occupations tend to report a greater increase in their social recognition during the coronavirus pandemic. Base workers also show a similar tendency, although the negative deviations from the overall average and outliers are more frequent. In contrast, both non-essential self-em-



**Fig. 2a:** Political recognition

ployed and workers in non-essential jobs without training requirements were more likely to report a deterioration in their societal recognition compared to other occupational groups.

The boxplots of the factor scores in figure 2a express that base workers feel unappreciated by policymakers in the wake of the Covid-19 pandemic compared to other occupational groups, as most of the interquartile range is in the negative value range. The nursing professions occupy a middle position here. The self-employed are more likely to not feel recognised politically.

Both nurses and base workers are more likely than other groups to state that they do not feel that they are paid sufficiently (figure 2b). This includes both the

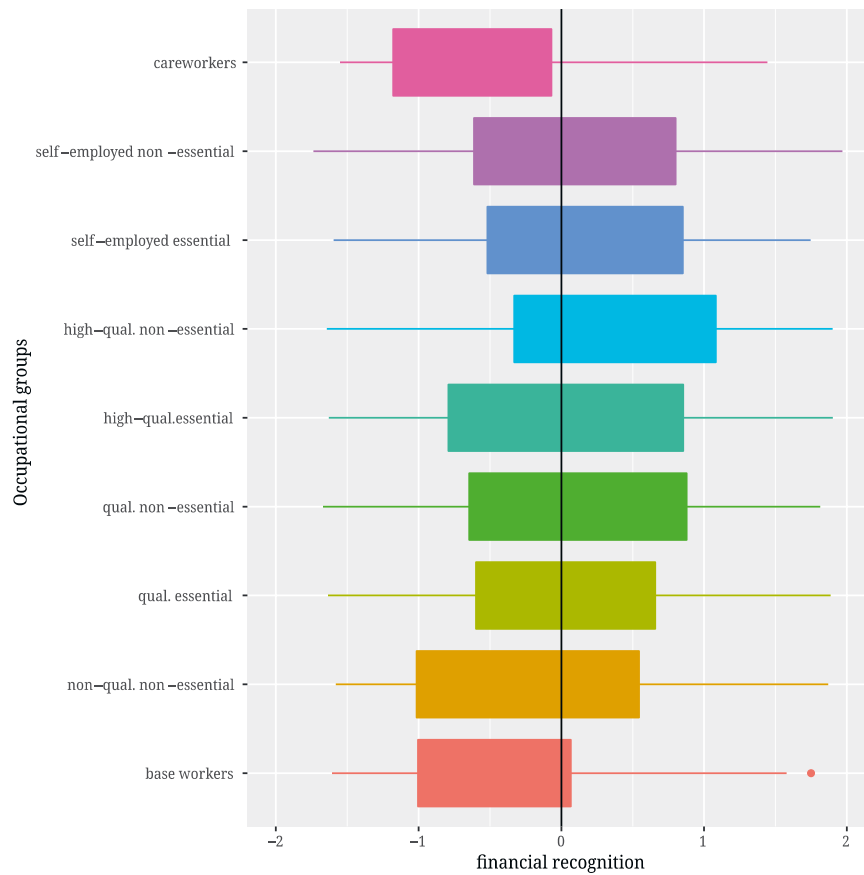
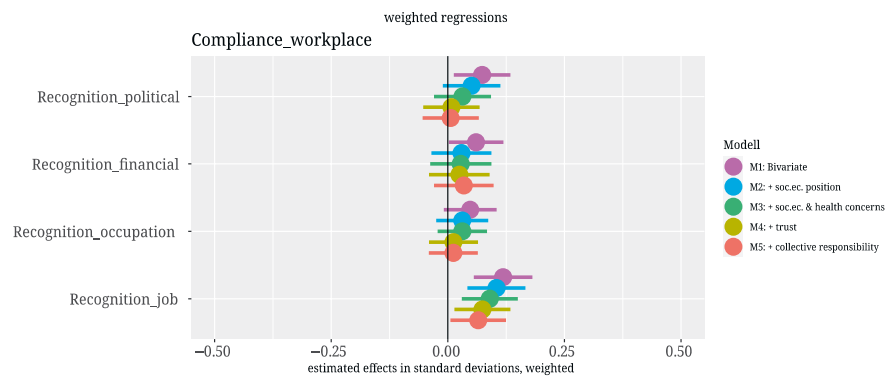


Fig. 2b: Financial recognition

feeling that their own occupational group deserves a higher wage level and the feeling that they are not adequately remunerated for their own work.

## 4.2 Micro-level compliance: Infection control measures in the workplace

Only a small proportion of the participants reported that they never, almost never or only sometimes comply with the rules (6.5 percent). More than two thirds either almost always or always comply. It should be noted that the responses may be influenced by social desirability.

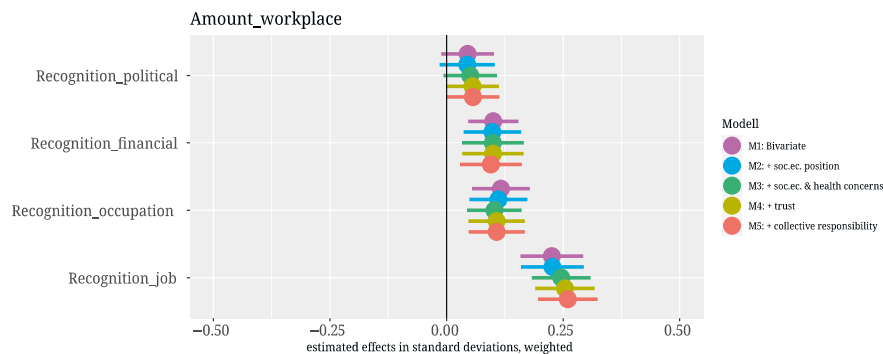


**Fig. 3a:** Weighted regression analyses of occupational recognition on compliance

Therefore, in a second step, we consider an indicator that is less likely to be biased by social desirability. For this purpose, we asked the respondents whether they consider the protective measures at their workplace to be appropriate in scope or whether they would like to see more or fewer measures. Most respondents considered the current measures to be appropriate. Moreover, if people wanted a change, they were more in favour of an expansion than a reduction in rules. Looking at these variables, it seems that the acceptance of the rules in force at the workplace is widespread and that there are no major differences between the occupational groups.

Figure 3a shows the impact of the four recognition dimensions on compliance. Recognition in the direct work environment (“Recognition\_job”) has a significant effect on compliance with infection control measures at the workplace. The higher the level of recognition received from colleagues, superiors, or customers/patients, the more likely respondents are to comply with the measures (M1). This effect persists even when controlling for socio-economic characteristics (M2), perceived economic or health risks (M3), institutional trust (M4), and a collective sense of responsibility (M5). In contrast, recognition at the more general occupational level (“Recognition\_occupation”) and recognition in the form of financial rewards (“Recognition\_financial”) have no significant effects on compliance in any of the models. Occupational recognition from politicians during the Covid-19 pandemic (“Recognition\_political”) is no longer significant after controlling for socio-economic characteristics.

Next, we turn to the effects of occupational recognition on perceived appropriateness of workplace measures. As figure 3b shows, the recognition experienced directly in the immediate working environment proves to be a significant explanatory variable for the perceived appropriateness of measures taken at the workplace



**Fig. 3b:** Weighted regression analyses of occupational recognition on the perceived appropriateness of the scope of measures at the workplace

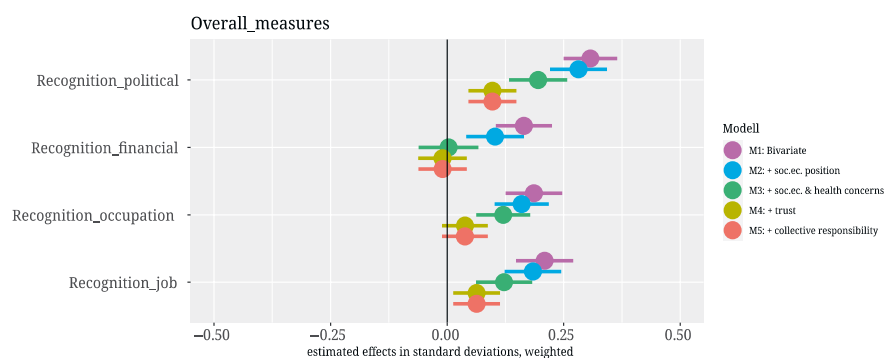
(M1). Again, the effect remains stable even after controlling for all other variables (M2–M5). Societal recognition of occupational groups and financial recognition each show a significant effect on the perceived appropriateness of the scope of measures taken at the workplace (M1) and remain robust until the final model with all control variables (M2–M5). However, the effect of job recognition is stronger at about 0.25 standard deviations compared to the effects of occupational and financial recognition (about 0.08 standard deviations).

Taken together, these findings support H1 in several ways: we find positive relations between job recognition and workplace compliance, and positive impacts of job, occupational and financial recognition on the assessment of the workplace measures. However, we find no indication that these relationships are influenced to any relevant extent by economic threat perceptions, institutional trust, or solidarity norms. In consequence, H2 must be rejected regarding workplace compliance. The stable effects potentially point to improvements in self-efficacy as the main mechanism driving the influence of recognition on workplace compliance, while institutional trust, economic threats, and collective responsibility play only a minor role in micro-level compliance. It should be mentioned that improvements in solidaric behaviour in the workplace due to higher levels of recognition cannot be completely ruled out, since the indicator of solidarity used in this study refers to a general normative attitude and not to specific workplace-related norms.

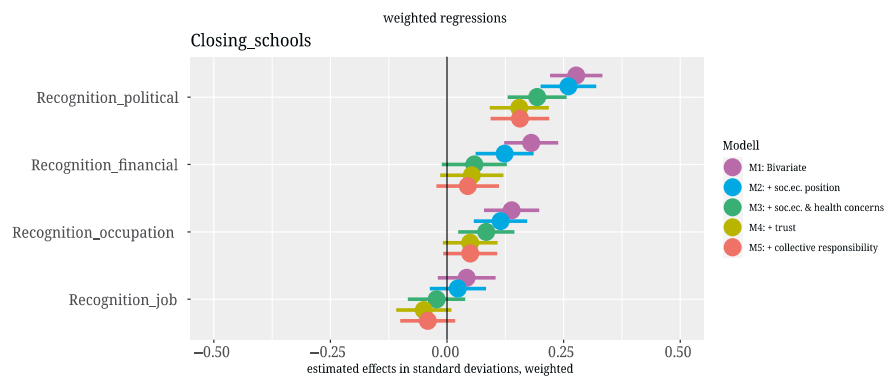
### 4.3 Macro-level compliance: Overall acceptance of infection control measures

Using willingness to accept restrictions (figure 4a) as a dependent variable, we observe that all recognition dimensions show a significant positive correlation (M1). Those who feel recognised tend to be more willing to accept these restrictions. However, the mediators affect these relationships differently: the effect of financial recognition collapses once controlling for the subjective economic situation (M3). The effects of occupational and job recognition halve after controlling for threat perceptions (M3) and vanish entirely – in the case of job recognition, almost entirely – after controlling for institutional trust (M4). The sense of collective responsibility does not affect the impact of recognition (M5). Political recognition turns out to be the strongest predictor: in the bivariate regression, a one standard deviation increase in the level of recognition is associated with an increase of about 0.3 standard deviations in approval of the adopted measures (M1). Even after controlling for all other variables, this effect has a size of about 0.08 standard deviations (M5).

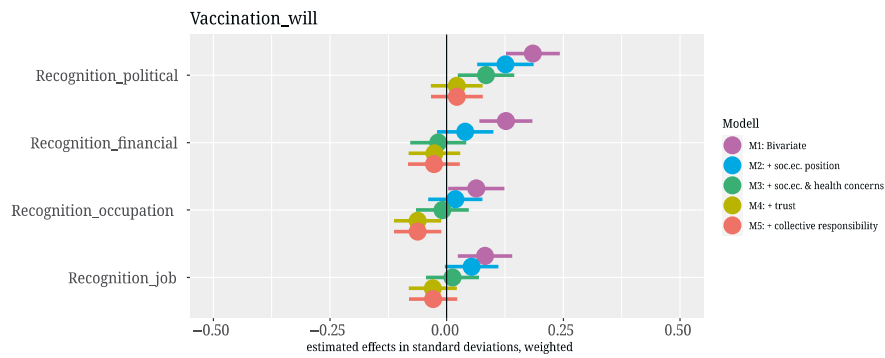
We find that all recognition dimensions, with the exception of job recognition, have a significant effect on support for closures of kindergartens and schools (Figure 4b, M1). As before, the effect of financial recognition becomes insignificant after adding risk assessments (M3), occupational recognition by society loses its significant effect after adding institutional trust (M4), and controlling for feelings of collective responsibility leads to no change in the effects (M5). Similar to the general measure, political recognition in particular has a significant effect on the acceptance of kindergarten and school closures, even after accounting for all controls



**Fig. 4a:** Weighted regression analyses of occupational recognition on the general acceptance of overall infection control measures



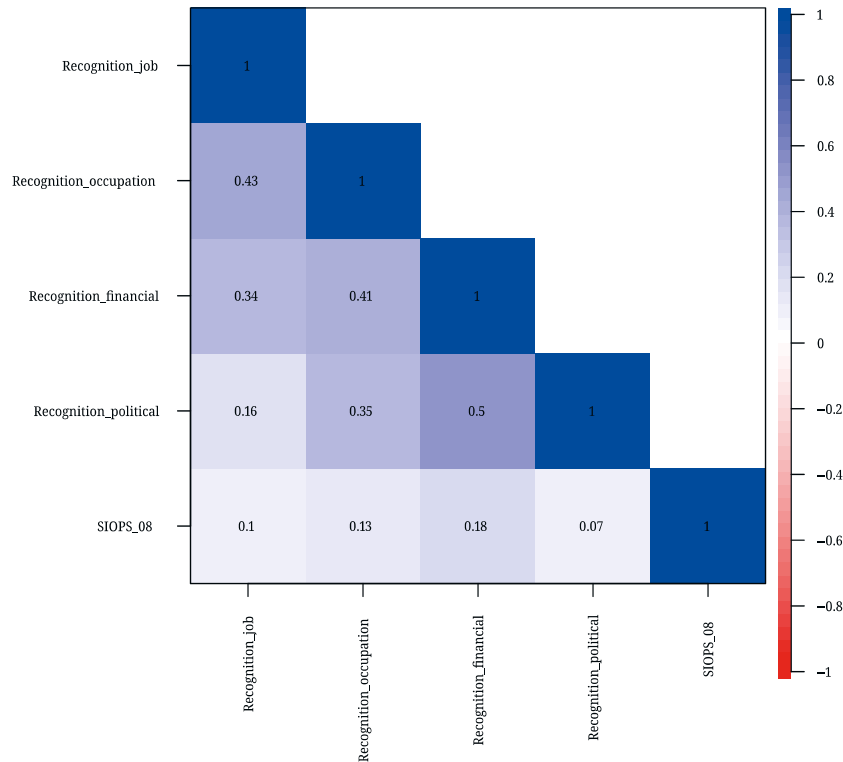
**Fig. 4b:** Weighted regression analyses on the effects of occupational recognition on the acceptance of the closure of schools and kindergartens



**Fig. 5:** Weighted regression analyses on the effects of occupational recognition on willingness to get vaccinated

(M2–M5). Thus, those who feel recognised by politicians are more willing to shoulder potential additional burdens due to the absence of childcare. Compared to the more general measures, this relationship is more robust. The effect only decreases from 0.28 standard deviations (M1) to 0.16 standard deviations (M5).

Lastly, all recognition indicators show a significant effect on willingness to get vaccinated (Figure 5, M1). After controlling for sociodemographic characteristics, the effects of general occupational recognition, financial recognition, and direct recognition in the immediate work environment are no longer significant (M2). Political recognition is significantly associated with the willingness to get vaccinated. The gross effect is about 0.19 standard deviations. However, this effect loses its significance after adding institutional trust (M4).

**Tab. 1:** Correlations of Siops08 scores and initial recognition factor scores

The results presented in this section can be summarised as follows. First, in terms of political and financial recognition, H1 is confirmed for all indicators of overall compliance: the acceptance of closures in general, acceptance of educational closures, and willingness to get vaccinated. For occupational and job recognition, the findings regarding H1 are inconsistent, vary with the indicator considered, and tend to be overall smaller. Second, all significant associations between recognition and the acceptance of closures are strongly influenced by threat perceptions and institutional trust, supporting H2. Third, the effects of recognition indicators on the willingness to get vaccinated are largely explained by socio-structural differences between groups, with the exception of the influence of political recognition. Fourth, we do not find relevant changes in any of the recognition effects when we add the indicator for solidaric norms. Furthermore, we find a significant effect for political recognition, even after controlling for economic threat perceptions and institutional trust. Thus, these findings suggest that perceived economic threats and institutional trust are the most important mechanisms mediating the effect of

recognition on compliance with general infection control measures. In accordance with our third hypothesis, the relationship between occupational recognition and compliance with infection control measures follow principles of micro- and macro-level implications. Job recognition (micro-level recognition) has a strong impact on compliance with measures at the workplace (micro-level recognition), but is not as important regarding the general acceptance of politically prescribed measures (macro-level compliance). The perceived level of recognition received by the occupational group itself, however, is significantly linked to the approval of macro-level infection control measures.

#### 4.4 Robustness checks

In this section we review our results with respect to two major limitations. First, we test whether our occupational recognition measures are constructs distinct from existing prestige scales to validate our instrument. Second, we check whether our results hold after integrating missing cases into the initial analyses through multiple imputation.

##### Occupational recognition vs. prestige

We argue that occupational recognition and prestige are two different concepts. While we emphasise that occupational recognition draws upon the subjective perspective of the individual and view it as the result of interactions, prestige is an attempt to translate occupations from an external point of view. To illustrate this argument, we used the information available for respondents' occupation and computed scores according to the Standard International Occupational Prestige Scale (SIOPS), following Ganzeboom and Treiman (2023).

Table 1 now shows that the correlations between the SIOPS scale and the various recognition factors are low. The highest correlation is about 0.18 between SIOPS and the financial recognition factor. The recognition factors, on the other hand, correlate moderately with each other and have correlations between about 0.34 and 0.5. We take these findings as an indication that prestige and the occupational recognition we measure are two distinct concepts.

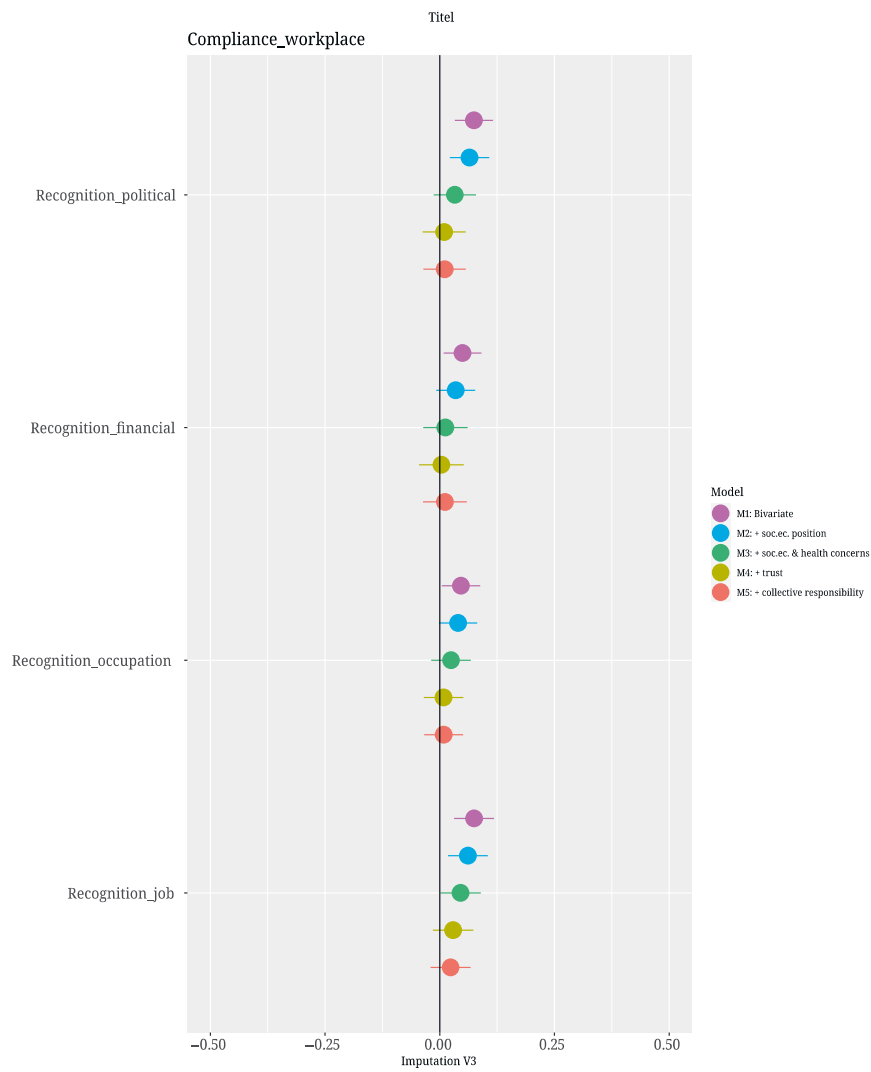
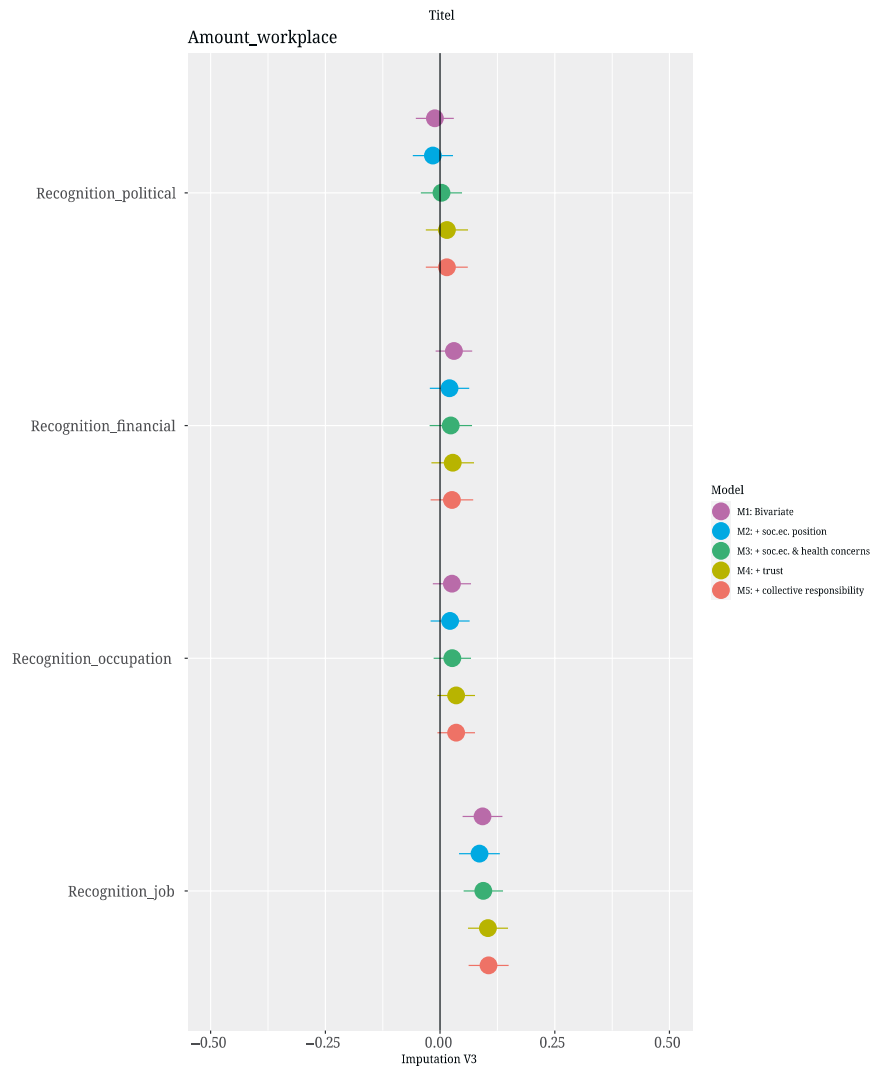


Fig. 6a: Replication of our analyses: dv is workplace compliance

### Handling of missing values using multiple imputation

In our analyses, we decided to use only complete observations. As a result, only 65 % of the original sample remains. Due to the high number of missing cases it is possible that our calculations are subject to systematic bias.



**Fig. 6b:** Replication of our analyses: dv is the perceived appropriateness of the scope of measures at the workplace

We used two different alternative strategies to handle missing data. First, exploratory factor analysis allows for a very crude imputation of missing values by replacing them with either the arithmetic mean or the median of the sample on that item. Second, we employed multiple imputation by using the R package “mice” (van Buuren/Groothuis-Oudshoorn 2011). We applied predictive mean matching for imputing missing values and created 100 imputed data sets.

Following the imputations, we replicate our regression analyses using the same models. Figure 6a shows that we no longer find a significant relation between job recognition and workplace compliance. However, the results persist with respect to the perceived appropriateness of the scope of measures at the workplace: job recognition is still a significant predictor, although the effect size is not as large as in the original analysis (figure 6b). Regarding the three dependent variables on macro-level compliance, the results show the same patterns as in the earlier analyses. Political recognition in particular proves to be an important predictor (see A6 in the appendix).

## 5 Discussion

The aim of this paper was two-fold. First, we assessed the extent to which specific occupations experienced a change in occupational recognition during the coronavirus pandemic. Second, we analysed whether occupational recognition has an impact on the acceptance of infection control measures at the workplace and at the societal level.

Regarding the first research question we find that nurses, health care professionals and base workers felt the least socially recognised at the time of the survey. About half of the respondents stated that occupational recognition had not changed since the beginning of the pandemic. For those in nursing and health professions who reported a change in recognition, this change was positive. However, this does not apply to the recognition by politicians or in terms of financial benefits – on the contrary, these two groups tend to feel disadvantaged in this regard.

Regarding the second research question, the study clearly shows that recognition is an important predictor of compliance (H1). Generally, the acceptance of infection control measures at the workplace is high. Still, recognition in the work environment has a positive effect on the willingness to comply with the rules, even after controlling for differences in economic threat perceptions, institutional trust and collective responsibility. Thus, the findings regarding workplace compliance are in line with our assumption that micro-level recognition is most important for micro-level compliance (H3): a higher level of recognition experienced in the work environment seems to be related to an increase in self-efficacy.

Looking at acceptance of closures and the willingness to get vaccinated as facets of macro-level compliance, we observe a different pattern. Here, political recognition proves to be the strongest predictor. Only for willingness to get vaccinated does political recognition no longer show a significant effect after controlling for economic threat perception and institutional trust, while this form of recognition

shows quite robust effects on the other two indicators of macro-level compliance. In contrast, the other forms of recognition are completely explained by mediating mechanisms. Specifically, economic threat perceptions mediate the influence of financial recognition on macro-level compliance, and institutional trust mediates the influence of political recognition. Hence, these results suggest that mitigating perceived threats and sending benevolence signals are most important for compliance at the broader societal level. However, we find no changes in recognition effects associated with greater compliance with solidarity-based norms. These mechanisms could explain the prominent effect of political recognition on macro-level compliance: Political institutions and their decisions arguably have the strongest influence on perceived recognition, which in turn affects perceived threat and trust at the societal level, especially in the context of the pandemic, where relevant policies were constantly communicated through the media.

A practical implication of these results could be to strengthen the recognition of specific occupational groups by political action. Employees in nursing and health care professions as well as base workers tend to feel less appreciated by politicians than other occupational groups, especially in terms of their financial remuneration. This finding is significant because these two occupational groups were celebrated at the beginning of the pandemic. One year after the start of the pandemic, however, it must be noted that this symbolic appreciation has neither continued nor translated into better pay or improved working conditions. However, given the ongoing stresses and strains caused by the pandemic and its aftermath and the systemic importance of maintaining critical infrastructure, the findings of this study highlight the importance of further political support for these two occupational groups.

In terms of workplace compliance, the results suggest that employers can facilitate compliance with infection control measures by creating a respectful working environment that strengthens solidarity norms in companies. With regards to job recognition, it would be interesting for future research to account for possible control variables like work-norm related attitudes and the context of the job environment, like the leadership style of superiors or the perceived cohesion between co-workers.

Regarding limitations, it should be borne in mind that response behaviour regarding compliance, especially at the workplace, is likely to be distorted by social desirability. This problem was counteracted by using different dependent variables to validate the results. Furthermore, if a social desirability bias occurs, it leads to a downward bias in the effects of social recognition sought in this study. Thus, the fact that substantial and significant effects can be identified despite the assumed social desirability bias underlines the importance of occupational recognition for compliance all the more.

Since our data are cross-sectional, we can only identify correlations but are not able to validate any causal mechanisms. Furthermore, we are restricted to the

German case, due to high country variation in the regulations that were enacted. Still, we argue that the basic mechanism at work – social recognition increases approval of policies – is to be observed across different countries. Further research could explore this mechanism across country-specific welfare state regimes and labour market arrangements.

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#### 4.2 Results paper II: Identity threats as an explanation for the rise of populism

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Article

# Rise of Populism: Identity Threats as an Explanation in Relation With Deprivation and Cultural Fear

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## Abstract

This article introduces the thesis of threatened social identities as a new explanatory approach to the emergence of populist attitudes and tests it explicitly for the first time using quantitative data. We examine whether SI indicators explain populist attitudes directly and influence effects of indicators of two established approaches: the losers of modernization thesis (LOM) and the cultural backlash thesis (CBT). We use a sample representative for the German labor force. Furthermore, we developed items to quantify the recognition of social identities for the first time with respect to social class and occupational identities. All four of our SI indicators—recognition of social class, recognition of an East or West German identity, political recognition of occupational groups, and identity insecurity—are significant predictors of populist attitudes. Based on SEMs, we also conclude that these variables are important antecedents of previously established indicators of LOM and CBT on populist attitudes. Overall, we conclude that SI adds to the literature on the emergence of populism as another complementary explanatory approach. In addition to being effective as an explanation in its own right, this thesis can also fill theoretical and empirical gaps of the established LOM and CBT.

## Keywords

populist attitudes, social identities, social recognition

## Introduction

One current challenge to social cohesion in Western democracies is the growth of populist movements which polarize societal debates and delegitimize political compromises as “a betrayal of the common people by elites” (Mudde and Rovira Kaltwasser 2019). Scholars have extensively tried to identify reasons for the rise in populist attitudes. The ongoing debates center around the “losers of modernization thesis” (LOM; Gidron and Hall 2017; Spier 2010) and the “cultural backlash thesis” (CBT; Norris and Inglehart 2019). However, both theoretical approaches have not yielded conclusive findings yet. Moreover, both ideas do not deliver a precise explanation of how exactly macrostructural changes like modernization and globalization are supposed to affect populist attitudes at the microstructural social level. Recent studies indicate that threats to social identities which result from large scale social changes contribute significantly to the emergence of populist attitudes (Droste 2019; Groß 2021). Based on these initial findings, we introduce social recognition and identity insecurity as important

mechanisms that connect social change with populist attitudes. We test the explanatory scope of this innovative approach in comparison to the more established LOM and CBT.

Hence, the central question of this paper is: to what extent do threats to social identities serve as an explanation for the rise of populist attitudes? We use data of an online survey which is representative of the German labor force to address this research question. Germany is an interesting case as populist parties did not have any long-term success after WWII until the AfD (alternative for Germany) was founded in 2013. Ten years later this party is represented in most of the 16 state parliaments and is a contestant for the second highest share of votes at the federal level. Within this 10-year span, the party

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leadership has changed several times and some of the regional branches of the movement, which was once founded as a party critical of the euro and the EU, are being monitored by the German domestic intelligence service. Political scientists uniformly classify the party as populist (Arzheimer and Berning 2019; Decker 2016). However, few scholars use measurements of populist attitudes in the context of Germany which we intend to do.

Furthermore, this is the first study of populist attitudes using a quantitative measure of social recognition. We collected information on the perceived recognition of three different social categories as well as a general measure for identity insecurity in the form of anomia. We use social class recognition, perceived occupational recognition on the part of politicians during the Covid pandemic, and recognition of an East or West German identity. The regional dimension of recognition is important for the German case since previous studies have shown higher prevalence of populist attitudes in the Eastern federal states of Germany (Manow 2018; Pesthy, Mader, and Schoen 2021; Weisskircher 2020).

We organize our paper as follows: The next section lines out the theoretical framework. The third section of this paper describes the underlying data and methods in more detail. In section four, we present the results of our analyses. We conclude this paper by discussing our findings in section five and suggest directions for future research.

## Theory and Hypotheses

We start this section with our understanding of populism as a “thin ideology” (Mudde 2004; Mudde and Rovira Kaltwasser 2019). Second, we provide a brief overview of the state of research on the explanation of populist attitudes to date. Third, we present our new approach for the explanation of populist attitudes. Based on a short elaboration of the importance of intact social identities, we argue that the identity threat approach is the missing piece of the puzzle to fill the conceptual gaps in the LOM and CBT approaches. To conclude the theoretical framework, we derive our hypotheses for the subsequent empirical analyses.

### *Populism as a “Thin Ideology” and Established Explanatory Approaches*

This paper uses the definition of populism as a “thin ideology.” Cas Mudde and Cristobal Rovira Kaltwasser established this definition, thereby depicting populism as an antagonist conflict between the common will—“volonté générale”—of the “pure people” and a “corrupt elite” that is in power and betrays the people (Mudde

2004, 543; Mudde and Rovira Kaltwasser 2019, 25). Fundamental for this “ideational approach” is the Manichean worldview of a moral conflict between good and evil, the anti-elitism, and the sovereignty of the people (Mudde 2004; Mudde and Rovira Kaltwasser 2019).

Two approaches have emerged as the most frequently discussed theories for identifying the causes of populism. These are, first, the “losers of modernization thesis” (LOM, Gidron and Hall 2017; Spier 2010) and, second, the “cultural backlash thesis” (CBT, Norris and Inglehart 2019). Both approaches identify the consequences of modernization and globalization as main drivers for the rise of populism. The LOM focuses on economic change and sees material wealth losses and status anxiety as decisive reasons for the development of populist attitudes. The CBT, on the other hand, emphasizes cultural change and its consequences in the form of cultural threats to traditional or national identities. The two approaches are not mutually exclusive but rather complementary.

*Losers of Modernization Thesis.* The most prominent explanation of the emergence of populist attitudes in Western democracies is the LOM which focuses on economic change (Gidron and Hall 2017; Mudde and Rovira Kaltwasser 2018; Spier 2010). According to the LOM, globalization and modernization in its form as mechanization, destabilization of labor relations, and immigration lead to more competition and pressure for low-skilled and increasingly also middle status positions in the labor market. Populist actors often declare themselves as advocates of protectionist measures to counter outsourcing of jobs and the immigration of potential competitors in the local labor market (Kriesi 2008). They also argue in a sense of welfare chauvinism and frame public (monetary) assistance as primarily a privilege of native people—with nativism being a political highly contested subject (de Koster, Achterberg, and van der Waal 2013; Mau and Burkhardt 2009; Mewes and Mau 2012; Van der Waal et al. 2010).

Various scholars have already investigated the LOM. Overall, lower educational attainment, low income, and joblessness are possible predictors of populist voting (Lux 2018; Tutic and von Hermann 2018). Still, the robustness of these findings is debated. Especially the different operationalizations of populism (votes cast, voting intentions, or appreciation of certain parties as proxy for populist attitudes) draw criticism (Bergmann et al. 2017; Lengfeld and Dilger 2018; Schröder 2018).

An increasing body of literature focuses on the *subjective perception* of current and anticipated material hardship. Not only people in low socio-economic circumstances feel attracted to populist movements but also members of the middle class may have sympathies for populist parties (Antonucci et al. 2017; Kraemer 2010;

Lengfeld 2017; Nachtwey 2016). Globalization puts middle classes under pressure, as they face a higher level of competition in the labor market. They see their established skills devalued and are increasingly employed in atypical work arrangements (Blossfeld et al. 2011). Being employed under atypical working conditions, in turn, increases the risk of poverty and a decline in the socio-economic status of an individual (Giesecke 2009). Once again, populist parties present themselves as patrons of local workers to reduce status anxiety (Burgoon et al. 2019).

Relative deprivation has emerged as a key concept in this regard and refers to a condition in which an individual does not possess a good to a sufficient degree with respect to a point of reference. This concept acknowledges that people strive for goods that they themselves do not own, while either other people do possess them or the individuals used to be in control of said good in the past, but not anymore (Rippl and Baier 2005; Runciman 1966). Empirically, several studies have shown that relative deprivation is indeed a strong predictor for populist voting behavior or populist attitudes (Manunta et al. 2022; Rooduijn and Burgoon 2018; Spruyt, Keppens, and van Droogenbroeck 2016). Lüders et al. (2021) argue that vertical group relative deprivation is the most important facet of relative deprivation in explaining populist attitudes. Fears of downward mobility—also referred to as status anxiety—are another subjective economic motivation for populist voting (Bergmann et al. 2017; Engler and Weisstanner 2021; Sachweh 2020; Sthamer 2018).

Besides the different interpretations of LOM in terms of objective and subjective indicators, another discussion revolves around the *scope* of the economic situation under consideration. Is it only the (perception of) individual socio-economic positions or rather the development at the macro-level which influences populist voting? Studies indicate that the perception of the individual's economic situation is not as decisive for populist voting as the perception of the economic development at the country level (Cena et al. 2023; Engler and Weisstanner 2021; Rico and Anduiza 2019; Rooduijn and Burgoon 2018; Watson, Law, and Osberg 2022).

Overall, the literature provides mixed results so far in testing the LOM with subjective assessments that reach beyond people's individual situation being the most promising explanatory factors. Moreover, this perspective lacks a specific explanation why people who are not deprived in absolute terms feel threatened in relative terms anyway and how this then translates into populist attitudes. These conceptual and empirical ambiguities indicate the need for alternative explanations.

*Cultural Backlash Thesis.* According to Ronald Inglehart and Pippa Norris (2016), globalization and modernization

also challenge hierarchy of social groups in cultural terms. They argue that improved material security led to a “silent revolution” and empowers previously marginalized social groups to articulate their political demands. Against this background, populist movements bundle a “cultural backlash” of previously socio-culturally dominant groups that have lost their traditional dominance or see it endangered by societal pluralization (Norris and Inglehart 2019). While Inglehart sees value shifts between generations as decisive group boundaries, only one study examines this narrow interpretation of CBT and finds no significant influences between generation and a populist party vote (Schäfer 2022). In our view, the central element of this approach is that group membership is linked to certain values, norms, and associated expectations of action. As soon as the characteristics of the corresponding lifestyles are attacked, threatening situations arise against which these established lifestyles defend themselves, resulting in a so-called backlash. The clearly defined lifestyles and their traditions try to maintain their hegemony and any form of change is rejected.

Most often, authors use attitudes toward migration in general or toward refugees in specific as indicators of whether people support or oppose cultural change. Especially when the research focus is on right-wing populist parties, as this is the case in most of the research related to Germany, studies find a positive association between opposing migration and voting for the right-wing populist (Bergmann et al., 2017; Hambauer and Mays 2018; Lengfeld and Dilger 2018; Rippl and Seipel 2018; Schröder 2018; Schwarzbözl and Fatke 2016). In the European context, attitudes toward the European Union are another significant predictor of right-wing populist voting (Schmitt-Beck, van Deth, and Staudt 2017; Schwarzbözl and Fatke 2016).

However, it is debatable whether these findings can be considered as reliable empirical support of the CBT, since xenophobia or attitudes toward migration are conceptually very close to the dependent variable used in these studies (right-wing party voting). In fact, scholars identify nativism as a core concept of right-wing party identities (Golder 2016; Mudde 2007; Rydgren 2007). Moreover, we also have to question whether nativism does not also conceal economic motives. At this point, the boundaries between LOM and CBT become blurred. A negative attitude toward migration can arise from pure xenophobia on the one hand or from fear for one's own socio-economic status due to migration on the other. Moreover, skepticism toward the European Union does not necessarily imply a rejection of cultural change. It is also possible that respondents view the European institutions critically for other reasons.

All in all, empirical tests of the CBT—at least for the German case—lack convincing operationalization so far.

### New Approach: Theory of Threatened Social Identities

The two explanatory approaches outlined above still lack explicit micro-social foundations. We propose the thesis of threatened social identities as an alternative explanation for the rise of populism. Though various scholars from different disciplines have already pointed out the importance of social identities and its possible implications on societal issues, there has not been a coherent approach to introduce social identity threats as an explanatory mechanism for populist attitudes and test this assumption empirically.

**Two Functions of Social Identities.** Two functions of social identities are essential for human beings which we will elaborate in more detail over the course of this section. First, individuals need positive social identities because they are an important condition for positive self-esteem (evaluative function). Second, the knowledge of one's own social identities empowers to act in social contexts (cognitive function). Without social identities, people lack guidelines that structure their actions.

**Recognition and Identity Threat (Evaluative Function).** In their "Social Identity Theory" (SIT), Henri Tajfel and John C. Turner (1979; 1986) argue that a positive social identity is based on a won comparison of one's own in-group with an out-group considered relevant. Threats to social identities posit a great danger for people as only a positive and stable social identity can lead to a healthy level of self-esteem and self-efficacy (Luhtanen and Crocker 1992; Martiny and Rubin 2016).

Francis Fukuyama (2018) points out that the degree of *social recognition* received for belonging to a social group is the most important signal of the evaluation of social categories by others. He argues that a lack of recognition explains a substantial part of the political power struggles and the polarization processes which arise simultaneously. This idea overlaps with Axel Honneth (1992) who argues that recognition is a basic universal human need. If an individual's social recognition is compromised, the result is that its self-esteem is hurt which threatens social identities existentially. Thus, we interpret social recognition as an important way of creating valued identities—or destroying them: a lack of social recognition lowers self-worth considerably, "shaking up" the fundamental base of people's identity. There may be other sources or threats to personal identities (such as being loved by relatives or close friends), but in terms of *social identities*—which consist of social categories (Mead 1973; Tajfel and Turner 1979, 1986)—social recognition is the main way to establish those identities.

Both SIT and Fukuyama's approach emphasize that identity formation is the result of a constant competition between social groups: the evaluation of the in-group

identity results from comparisons with out-groups, and the social recognition of both groups determines the outcome of this comparison.

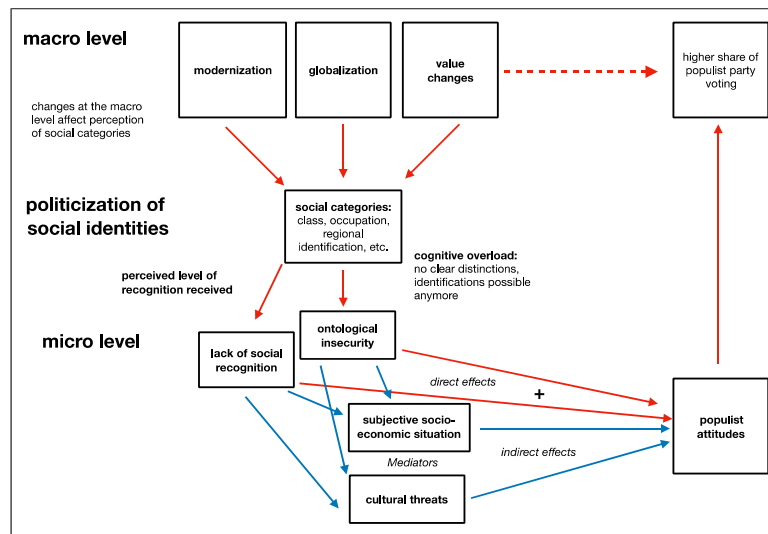
As our application of the Coleman (1990) model in Figure 1 illustrates, macrostructural trends such as globalization and modernization impact this competition since they influence the evaluation of social categories.

Processes of societal change ensure that various groups within social categories are evaluated differently than in the past. Formerly hegemonial groups (for instance: men, marriages between men and women, groups that strive for "megalothymia" according to Fukuyama (2018, 36ff)), are no longer unquestioned atop the recognition hierarchy. Meanwhile other groups (for instance, women and new living arrangements of same-sex partners) are striving for equal rights (or for "isothymia" in Fukuyama's terms). There lies an inherent potential for conflict in this concept. While the former dominant groups want to maintain their morally superior standing, the other groups strive for more equality and recognition. Either the first groups feel threatened by a potential loss of recognition through more equality, or the last groups still feel insufficiently recognized (Fukuyama 2018).

**Anomia (Cognitive Function).** In addition, social identities are under threat if they cannot provide sufficient orientation about social categorizations, that is, they cannot fulfill their cognitive function. According to Herbert Mead (1973), only those who are able to understand different roles and to classify their own identity by understanding different roles are capable of acting (Mead 1973). With an intact social identity, the cognitive map is clear and the individual knows which path to take in everyday life. Without orientation for social action, people feel "ontological insecure" (Hermans and Dimaggio 2007, 40) which is another form to "shake up" identities.

Due to societal changes, social identities are constantly re-evaluated. During that process, it is possible that a lot of new categories or potential in-groups within these categories arise. Furthermore, expectations in conjunction with certain social identities may change in a rapid manner. As a result, people may feel threatened in their social identities as the constant increase in complexity becomes overwhelming for the individual. The cognitive map is enriched with a greater number of details and possible paths to take. Consequently, this leads to ontological insecurity because the expectations of certain social identities and the subsequent modes of conduct are no longer clear. Thus, the individual is not capable of choosing a certain path or feels lost with the consequences of wrong decisions. This ontological insecurity is the second main threat social identities resulting from social change (Hermans and Dimaggio 2007).

**Identity Threats and Populism.** We argue that these two threats to social identities—lacking social recognition and



**Figure 1.** Conceptual framework of social change, identity threats, and populism.

identity insecurity—make populist movements attractive. If the desire for recognition is not fulfilled, this sends signals to those affected: Needs, worries, fears, and desires are not acknowledged (anymore). The general displeasure over a lack of recognition leads to estrangement from social and political institutions. Populist movements meet the demand of the emerging recognition vacuum. They promise to fulfill the nostalgic wish for a restoration of the traditional status order through their rhetoric and political programs (Oliver and Rahn 2016).

Ontological insecurity also has the potential that people turn to populism. People start to feel the need of holding on to traditional hierarchies to soften the identity insecurity (Hermans and Dimaggio 2007). As populist movements offer to restore traditional values, they should attract those people who feel socially disintegrated due to their cognitive overload and their ontological insecurity. The appeal for these people is to retain a stable positive social identity with clear role expectations in a proven recognition order with strict definitions of social categories.

*Identity Threats in Relation to LOM and CBT.* A lack of social recognition increases populism not only because it signals a bad evaluation of others, threatening identity, and lowering self-evaluation. On top of that, respect of social identities provides information about the social status of an individual. The amount of respect is an indicator for its position in the social hierarchy. If this rank is in line with expectations of the individual or even higher, this would have a positive impact

on the perceived subjective situation which relates to the economic perspective of the LOM. Through this mechanism, we expect an indirect effect of recognition on populist attitudes. If an individual feels respected, this increases the satisfaction with the subjective situation, making the formation of populist attitudes unlikely. Vice versa, perceived disrespect can impact the subjective situation negatively, increasing the likelihood of populist attitudes.

Furthermore, an “intact” social identity not only buffers fears and anxieties which result from economic change. It also influences fears and anxieties which result from cultural change. If a person feels respected and is able to ground decisions on clear conceptions of him/herself, he/she would feel less threatened by changing values or incoming migrants than people who feel already disrespected by society. At this point we link to CBT, as here the individuals interpret the reordering of interactions and the arrival of new actors as threatening. Thus, as long as individuals feel respected, they have less reason to fear, which should reduce susceptibility to populist attitudes. Conversely, we expect signals of lack of respect to reinforce existing feelings of threat and hence indirectly increase the tendency toward populist attitudes.

*Hypotheses.* All in all, the argument put forward results in the following conceptual framework (see Figure 1). Intact social identities are essential for people because they serve two overriding functions: recognition of social identities provides a resource for self-esteem and provides information about one’s hierarchical level, allowing the

individual to derive clear principles of action in social contexts. Social change in economic and cultural terms now alters traditional orders of recognition in two ways. First, certain groups within social categories experience devaluations, whereas other groups experience valorizations. As a result, those who do not feel sufficiently recognized desire the old order back. Second, social change is causing an increase in the complexity of the recognition order of social categories. Thus, certain social groups no longer know where they stand, which is accompanied by losses of guiding and orientation functions. These groups feel their social identity is at risk and crave complexity reduction. All of these consequences potentially lead to populist attitudes and increase the likelihood of a higher turnout for populist parties in elections. Taken together, these arguments underpin our first hypothesis:

**Hypothesis 1.** Social identity threats—lacking social recognition and ontological insecurity—are strong explanatory factors for populist attitudes.

In addition to this initial direct mechanism, we assume that threats to social identities also impact populist attitudes indirectly through perceived economic threats as a mediator. In this line of thought, perceptions about disrespect or ontological insecurity cause a feeling of not receiving the fair share compared to others or not being compensated adequately. Especially future expectations and subjective perceptions might suffer due to social identity threats. This anticipation of future losses may result in populist attitudes. This reasoning leads us to hypothesis 2a:

**Hypothesis 2a.** The effects of threats to social identities are partially mediated by economic threats.

With respect to CBT, we argue that cultural change can cause the evaluation and recognition of particular social categories to change. While previously marginalized groups may experience valorization, this may be accompanied by devaluation processes for traditionally privileged in-groups. This perceived disrespect increases fears which result from cultural change, which in turn would enhance populist attitudes. These arguments motivate our last hypotheses:

**Hypothesis 2b.** The effects of threats to social identities are partially mediated by cultural threats.

## Data and Methods

### Data

We test our hypotheses using data of an online survey which is representative of the German labor force (for additional

information on the data provider see [appendix A1](#)). We collected data in February and March 2021 as part of research project that focused primarily on occupational recognition during the pandemic. In the initial survey, data of  $n = 2231$  respondents were collected. For the following regression analyses, we restrict our analysis to complete cases and use  $n = 1380$  cases. Design weights were used to account for missing cases and groups that were disproportionally represented. This relates specifically to two groups: 40 percent of our sample are citizens residing in the Eastern part of Germany. Also, we doubled the proportion of self-employed to roughly 20 percent. We included frequency tables as well as the results of our factor analyses in the [Table 1](#), [Table A2](#) in the appendix documents that distributions of the variables in our analysis sample do not differ a lot compared to the whole sample.

### Dependent Variable

[Castanho Silva et al. \(2020\)](#) compared seven different approaches and concluded that the scale of [Akkerman, Mudde, and Zaslove \(2014\)](#) is suited most adequately to identify populist attitudes. Building upon this work, [van Hauwaert et al. \(2020\)](#) propose a slight modification to capture extreme positions better. We use this instrument and calculate z-standardized factor scores. Overall, we find high loadings for all three items between 0.68 and 0.84 with good fit indices. A positive value indicates people with a more populist attitude compared to the average respondent.

### Recognition of Social Identities

Lacking social recognition has been tested as an explanation for populist or related attitudes so far ([Droste 2019](#); [Gidron and Hall 2020](#); [Grosfeld et al. 2022](#); [Manunta et al. 2022](#); [Selenko and de Witte 2021](#)). However, to investigate the outlined ideas, we need a more sophisticated and explicit approach. Therefore, we use instruments that directly measure possible shortcomings in social recognition with regard to three social categories: (1) social class (“class recognition”), (2) recognition experienced by policies addressing occupational groups during the pandemic (“political recognition”), and (3) an East or West German identity “East/West recognition.” Class identities remain an important source to build social identities upon. Classes are defined by socio-economic circumstances which limit or enhance the opportunities and chances in life of their members to a critical degree ([Albertini, Ballarino, and De Luca 2020](#); [Breen and Jonsson 2005](#); [DiPrete 2002](#); [Goldthorpe 2016](#)).

Occupational groups are the most important source to gather resources and recognition for performances in modern working societies ([Konietzka and Berger 2001](#);

**Table 1.** Means, Standard Deviations, Factor Loadings, and Communalities of Our Dependent and Independent Variables.

Variable	Wording	n	Mean	SD	Factor Loadings	Communalities
Populist attitudes	The people, not the politicians, should make the most important political decisions	1380	3.92	0.99	0.68	0.52
	The special interests of the political class have a negative impact on the welfare of the people	1380	3.63	1.09	0.84	0.71
	Politicians always agree when it comes to protecting their own privileges	1380	3.79	1.14	0.68	0.54
Social identity threat explanation						
Class recognition <sup>a</sup>	The work of people like us is no longer valued today	1380	3.41	1.04	0.76	0.65
	People like me used to be respected more	1380	3.42	1.07	0.73	0.49
	People like me are given little respect by most others	1380	2.91	1.06	0.70	0.53
	The contribution of people like us to Germany's prosperity is no longer sufficiently appreciated today	1380	3.55	1.03	0.76	0.58
East/West German recognition <sup>a,b</sup>	Somehow East Germans are 2nd class citizens	1380	2.4	1.31	0.71	0.54
	The achievements of the East Germans in the reconstruction of the new federal states are not sufficiently appreciated	1380	3.4	1.14	0.76	0.57
	East Germans are disadvantaged compared to West Germans	1380	2.9	1.26	0.84	0.71
	West Germans make too little effort to understand the situation of East Germans	1380	3.23	1.13	0.82	0.57
Political recognition <sup>a</sup>	...was bypassed by politicians in the disbursement of aid money in the Corona pandemic	1380	2.98	2.98	0.82	0.65
	...is left alone with its problems by politicians in the pandemic	1380	3.2	1.25	0.89	0.81
	...is not sufficiently perceived by society as systemically relevant	1380	3.12	1.22	0.48	0.40
Anomia	People used to be better off because you knew what you had to do	1380	3.1	1.03	0.61	0.37
	Things have become so difficult that I no longer know what's going on	1380	2.81	1.12	0.90	0.81
	Today, everything changes so quickly that I often don't know what to stick to	1380	3.08	1.18	0.82	0.68
Losers of modernization thesis						
Relative deprivation	When you compare yourself to other citizens living in Germany: Do you think you... [receive much more/much less than your fair share]	1380	3.46	0.78		
Job worries	I'm afraid that I won't be able to meet the challenges of digitization	1380	1.87	0.97	0.43	0.19
	I am worried about my job	1380	2.05	1.13	0.73	0.53
	I'm afraid that I'll be able to afford less and less despite working	1380	2.86	1.27	0.62	0.39
Absolute deprivation <sup>c</sup>	How would you rate your financial situation today?	1380	3.24	0.88		
Cultural backlash thesis						
Cultural change	Globalization poses a threat to German culture	1380	2.94	1.1		

<sup>a</sup>Values reversed before factor analysis.

<sup>b</sup>People identifying as West German were shown reverse East/West wording.

<sup>c</sup>Values reversed for analyses.

Reckwitz 2019). As Goos, Manning, and Salomons (2014) argue, especially routine-based technology jobs are under pressure. Especially during the Covid-19 pandemic, the importance of respected occupational identities became evident as professions were classified into (non)-essential work in Germany (Mayer-Ahuja

2021). Since our dependent variable, populist attitudes, is a political variable, we use the perceived political recognition of occupational groups within the first year of the pandemic.

For the German case, the distinction between East and West Germany remains sharp even more than 30 years

after the union of both parts of Germany. The voting behavior, demographic characteristics, socio-economic status and cultural values reveal lots of differences between both regions (Haffert 2022; Manow 2018; Pesthy, Mader, and Schoen 2021; Weisskircher 2020). Thus, it seems reasonable to consider threats to an East or West German identity as potential reasons for a higher likelihood of forming populist attitudes.

With regard to the last dimension, we can use scales developed and used in earlier studies (Heitmeyer et al. 2013; Rippl and Seipel 2021). Since there are no established measures of social recognition with respect to class and politics in the literature available, we developed formulations and pretested such scales specifically for this study. First, participants were asked to assign themselves to a social class, then to indicate how closely they felt connected to this class and only then were they given the four items on recognition. Thus, the framing of their own social class should therefore have been very clear. We operationalize the social recognition measures with z-standardized factor scores based on short scales with three to six items. Table 1 shows the wordings as well as the loadings in exploratory factor analyses. We included the items of class recognition and political recognition in the same factor analysis. Still, we can extract two distinct factors with a correlation of 0.35, indicating that we measured two empirically different concepts (Table 2 shows all correlations between the independent variables). As before with populism, a positive value means a person feels more recognized than the average person in the sample.

#### *Anomia Indicator*

A growing body of literature measures ontological insecurity as general anomia (Gidron and Hall 2020). Indeed, anomia is one of the strongest predictors of populist voting and of populist attitudes (Droste 2019; Elchardus and Spruyt 2016; Spruyt, Keppens, and van Droogenbroeck 2016) and feelings of social exclusion can be predictors of right-wing populist voting as well (Langenkamp and Bienstman 2022; Sachweh 2020). We restrict our measure of ontological insecurity to the anomia scale that has been empirically tested before (Gümüs et al. 2014). It contains three items, one example being: “*Things have become so difficult that I don’t know what’s going on.*” Once again, positive values indicate stronger feelings of anomia compared to the average respondent.

#### *LOM Indicators*

*Subjective deprivation* is measured by the perception of one’s financial situation (“absolute deprivation”), a standard item on the perception of getting less than a fair

share when compared to others (“relative deprivation”) and by worries about losing one’s job (“job loss worries”). The last indicator is once again operationalized through z-standardized factor scores and based upon three items that capture potential worries about one’s own job status. A positive value indicates a higher perceived job threat compared to average respondent in the sample. To make the coefficients of later analysis comparable, we z-standardized the items of financial worries and relative deprivation. Again, positive values indicate greater financial worries or a more pronounced sense of relative deprivation compared to the mean.

#### *CBT Indicator*

*The perception of cultural change* is measured with one item where respondents were asked whether they feel that globalization poses a threat to German culture. Respondents could give their answer on a five-point Likert-scale. Once again, we z-standardized this item in the way that a positive value indicates higher levels of perceived threats to the German culture compared to the mean answer in the sample.

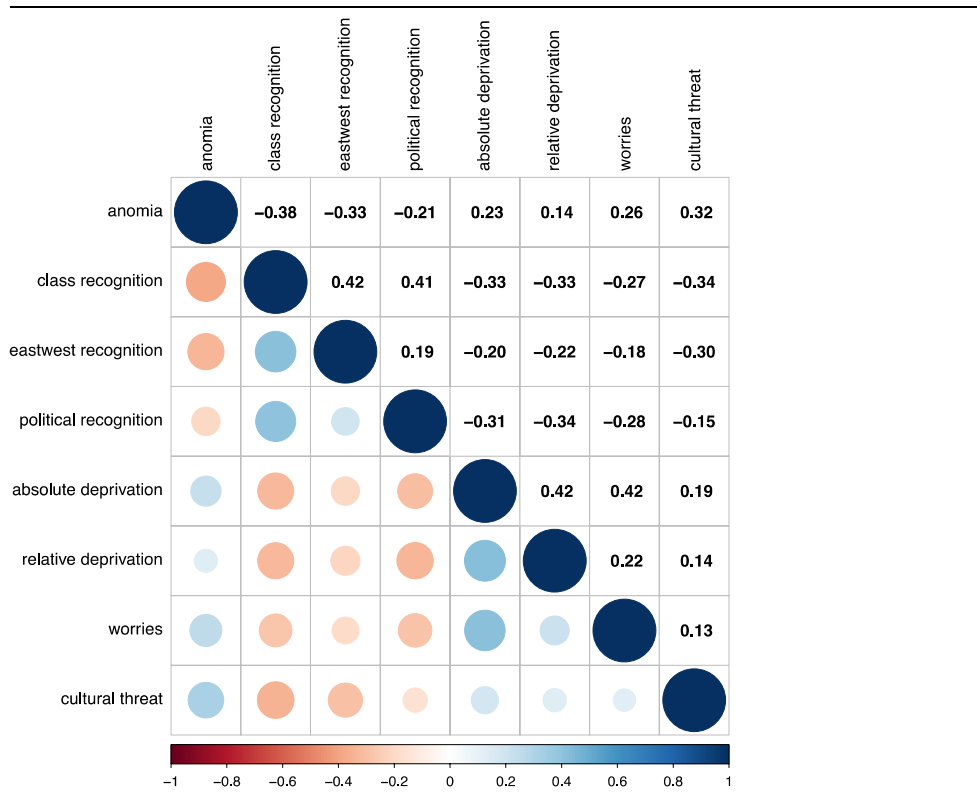
#### *Socio-Demographic Controls*

Socio-economic status is indicated by education, occupational status, and a fixed-term employment contract (yes/no). Education was measured with three categories: having no school degree (low), inheriting at least a high school degree (middle), and possessing a university degree (high). Occupational status was operationalized by a standard scale as well as a scheme that contains 11 different sub-groups and is mainly orientated by the required formal education of a job and its definition as essential work. These nine groups are care workers, occupations with a high level of necessary education and a non-essential status, occupations with a high level of necessary education and an essential status, occupations with a medium level of necessary qualification and a non-essential status, occupations with a medium level of necessary education and an essential status, occupations without formal training necessary and non-essential status, occupations without formal training required but necessary jobs—so-called “base workers”—essential civil servants, non-essential civil servants, and lastly a rest category.

#### *Methods & Models*

For our first analyses we implement linear regression models. In an initial model, we use one of the four indicators of social identity threats (“anomia,” “class recognition,” “eastwest recognition,” and “political recognition”) together with demographic controls as well as objective socio-economic characteristics. The second model contains the three indicators of the LOM approach in addition. In

**Table 2.** Correlations of all Independent Variables.



Model 3, we extend the analyses by introducing the proxy of the CBT. In a last model, we include all four SIT indicators at the same time to see whether we still find net effects after controlling for that many other possible explanatory mechanisms. To test hypotheses H2a and H2b, we perform structural equation models by using the R package “lavaan” to conduct the analyses (Rosseel 2012).

**Results**

*Threats to Social Identities as a Strong Predictor of Populist Attitudes*

First, to test H1, we run linear regressions of all four SIT indicators considered on populist attitudes, while controlling for socio-demographic information and socio-economic characteristics (M1). With respect to the three dimensions of social recognition, Figure 2 shows a significant negative effect of social recognition on populist attitudes: an increase in recognition in each

dimension leads to a decrease in populist attitudes. These effects are not only significant but also strong. Especially class recognition has a large impact on populist attitudes. An increase of one standard deviation in class recognition reduces populist attitudes by 0.35 standard deviations. The effects of occupational recognition (-0.27) and recognition received as an East or West German person (-0.33) also indicate strong associations between the level of perceived recognition and populist attitudes.

Additionally, we find that between 17 (political recognition) and 21 percent (class recognition) of the observed variance in the dependent variable can be attributed to the recognition indicators and control variables. We also find significant effects of anomia on populist attitudes. An increase of anomic feelings of one standard deviation leads to an increase of populist attitudes by almost 0.37 standard deviations. This model can explain roughly 22% of the observed variance in populist attitudes.

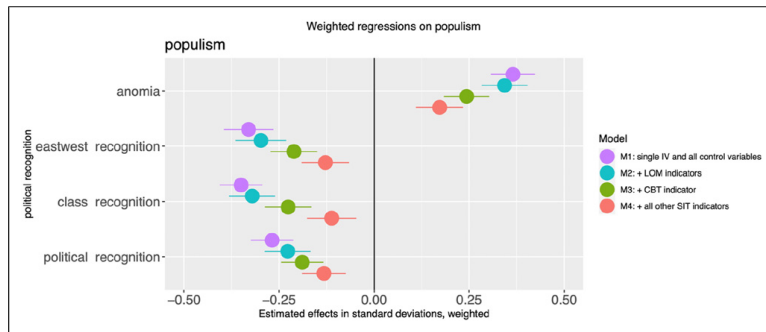


Figure 2. Results of multivariate weighted regression analyses.

In a second Model (M2), we introduce the three indicators of the LOM approach. Here we intend to see, whether the significant effects of the social recognition variables are still valid once we include other possible explanations. All four recognition variables still show significant correlations with our dependent variable and the effect sizes decrease only slightly. Regarding the LOM indicators, only relative deprivation has a significant effect on populist attitudes. However, this is not the case when combined with class recognition.

Model 3 includes the CBT indicator as well. The effects of the four SIT indicators are still significant, even though the effect sizes diminish a little more compared to the introduction of the LOM indicators. However, at almost or above 0.2 standard deviations, all four SIT indicators have a substantial impact on populist attitudes.

Lastly, in Model 4, we combine all SIT indicators. All four predictors still have significant effects even though those may be distorted by multicollinearity, since the indicators correlate moderately (Cronbach's alpha between 0.19 and 0.42). This underpins the importance of the different facets of social recognition and anomia that seemingly influence populist attitudes in slightly diverging patterns. All in all, these results show that a lack of recognition of social identities and anomic feelings leads to higher populist attitudes.

The results outlined so far confirm our hypothesis H1 that threats to social identities increase populist attitudes at a significant level. Not only do we find significant effects with a considerable effect size when looking at bivariate associations. Furthermore, these effects are still significant if we control for demographic information, socio-economic characteristics, and alternative explanatory approaches. Interestingly, the effects of the LOM approach are not as robust and no longer significant once we run a combined model with all eight indicators of the three explanatory mechanisms tested (M4). This sets up

our second part of the results section in which we have a closer look on the relationship between threats to social identities and the LOM and CBT.

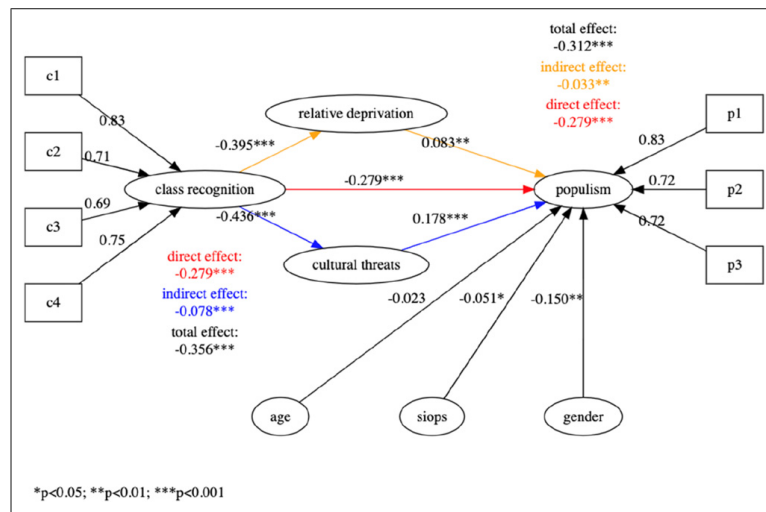
### Structural Equation Models: Economic and Cultural Threats as Mediators of the Effects of Threats to Social Identities on Populist Attitudes

To further disentangle the relationships between the indicators of threatened social identities and the indicators of the LOM and CBT approaches, we calculate structural equation models (SEM). Our assumptions in our second and third hypothesis state that indicators of the LOM and CBT mediate the effects of perceived social identity threats on populist attitudes.

We compute a separate SEM for each of our four recognition indicators in order to filter possible differences between the different recognition dimensions on the one hand and to prevent multicollinearity on the other hand. The latter reason is also crucial for the fact that we include relative deprivation as the only indicator for LOM in the model. We also include age, occupational prestige and gender as control variables.

Figure 3 illustrates the results of the SEM that contains class recognition. Class recognition has a significant negative direct effect on populist attitudes. An increase of class recognition leads to a decrease in populist attitudes by almost 0.28 standard deviations. Furthermore, class recognition has significant negative effects on relative deprivation and perceived cultural threats. In both cases, an increase of social recognition of one standard deviation would relate to a decrease in the LOM and CBT indicator of about 0.4 standard deviations. The effect is little stronger for the CBT indicator.

If we look at the second part of each mediation path, on the one hand, we find significant positive effects of each



**Figure 3.** Structural equation model of class recognition, relative deprivation, and cultural threats on populist attitudes.

indicator on populist attitudes, on the other hand; however, these effects are low, resulting in a low indirect effect. Based on this result, we can confirm hypotheses H2 and H3 as we see a partial mediation of the LOM and CBT indicators on the relationship between the SIT indicator and populist attitudes. The more accurate interpretation of this finding may be that social identity threats are not only an important direct predictor of populist attitudes, but also for economic and cultural threats that have no longer as much of an impact on populist attitudes when social recognition is part of the model.

In our second SEM (see Figure A4 in the appendix) that contains political recognition of the occupation, the SIT indicator has once again a significant negative effect on populist attitudes at about  $-0.23$  standard deviations. As before the indirect effects through relative deprivation and cultural threats add little to the total effect. In the case of relative deprivation, occupational recognition has a significant predictor at roughly  $-0.31$  standard deviation. However, the effect of relative deprivation on populist attitudes is small and only significant at  $p < 0.05$ . The relationship between political recognition of the occupation and cultural threats is rather small at about  $-0.15$  standard deviations.

The recognition perceived for an East or West German identity (see Figure A5 in the appendix) has a direct effect on populist attitudes at ca.  $-0.22$  standard deviations. Again, the LOM and CBT indicators add little to the total effect as potential mediators. Cultural threats contribute with about a quarter to the total effect.

Lastly, we find similar patterns in the case of anomia (see Figure A6 in the appendix) compared to the results presented so far. The direct effect is positive; however, this is expected as a higher level of identity insecurity of one standard deviation leads to an increase in populist attitudes at about 0.16 standard deviations. In contrast to the previous three indicators, the differences in the effect sizes of anomia on relative deprivation and cultural threats stand out. While for the different recognition indicators, the effect sizes were about similar, this time, and the effect of anomia on cultural threats is more than twice as big compared to the effect on relative deprivation.

In total, we can conclude that the results confirm our hypotheses H2 and H3. All four recognition indicators show significant direct effects on populist attitudes. Of the total effect of our SIT indicators, the potential mediators of the LOM and CBT contribute only little through their indirect effect. This means that social recognition effects on populist attitudes are partially mediated by the indicators of the established approaches. While social recognition indicators are significant predictors of the CBT and LOM indicators, the latter only show small effects when we already account for social recognition. Therefore, we deduce that threats to social identities are an important new mechanism that should be considered as an explanation for populist attitudes.

As our data are cross-sectional and we cannot identify causal mechanisms, we reversed all of the SEMs described above in the way that the recognition indicators served as the mediators while the LOM and CBT

indicators were modeled as the independent variables (see Figures A3 through A6 in the appendix). With regard to the economic indicators, their direct effects on populist attitudes are smaller or similar than/compared to the indirect effects through the identity threat indicators. The total effect sizes are smaller as well when identity threat indicators are modeled as the mediators. We consider these results as a confirmation that using social recognition indicators and anomia as the independent variables and LOM indicators as well as the CBT indicator as mediators depicts the data structure more accurately than the other way around.

### Discussion and Outlook

The main goal of this paper was to introduce and empirically test threats to social identities as a possible explanation in the formation of populist attitudes for the first time. First, the results indicate that threats to social identities can be interpreted as an important explanatory mechanism indeed, since all four indicators of threats to social identities show significant effects over and above all indicators of the LOM approach and even regarding cultural threats, as argued by the CBT. This confirms our first hypothesis that threats to social identities are important predictors of populist attitudes. In the second part of our analysis, we aimed to disentangle the relation between the three theoretical approaches. We show that threats to social identities have significant and strong direct effects that account for almost the whole total effect on populist attitudes. In line with our expectations, economic and cultural threats partially mediate the effect of social identity threats on populist attitudes. While the indicators of the SIT are significant predictors of economic and cultural threats with considerable effects (about 0.4 standard deviations), the effects of the latter on populist attitudes diminish to a degree that the overall indirect effects are relatively low (accounting for roughly 10–20% of the total effect). We interpret these findings as initial evidence that social identity threats need to be considered as the underlying mechanism that evokes the effects of economic and cultural threats on populist attitudes that have been extensively researched as main explanations for growing populist movements in the literature so far Table 3.

Moreover, the findings underscore that anomia is indeed a distinct type of identity threat. On the one hand, the direct effect of anomia on populist attitudes is very strong and comparable to the effect strength of lack of class recognition. On the other hand, the relations with the LOM and CBT indicators suggest that other feelings of threat underlie here, which seem to be less economically tinged.

However, the results of our study only serve as a starting point, as they are limited in many respects. First, in our data we found that especially indicators of the economically orientated LOM explanation do not work well as possible predictors. Future research should keep a closer look on the relationship with the CBT. Therefore, it is necessary to identify social categories that have been endangered by cultural aspects of globalization. While we focused on social categories (social class and occupation) that are more closely connected to economic change, cultural value shifts relate to ethnic, gender, or family identities. Future studies should investigate how to conceptualize, operationalize, and model cultural threats more specifically in this regard.

Particularly given that our data did not include any variables on attitudes toward migration, this should be a primary focus of future research. First, it should be tested whether the results of the present identity threats still hold when controlling for xenophobia or other measures of attitudes toward migration. Secondly, it would also be interesting to see to what extent the recognition of social categories constituted by ethnicity and culture are related to populist attitudes.

Moreover, by adding control variables such as ideologies and partisanship, future analyses could deepen our understanding of the extent to which the effects of lack of recognition on populist attitudes differ by political camp. While some studies find no mediating effect of left-right self-placement on the impact of relative deprivation on populist attitudes (Droste 2019; Lüders et al. 2021), other studies suggest that a closer look at these mechanisms may be worthwhile. For example, Burgoon et al. (2019) show that relative loss of status varies depending on the comparison group: a relative loss of status measured by the comparison with the upper income decile thus significantly favors the election of left-wing populist parties, whereas a loss of status compared to the lowest

**Table 3.** Overview of the Hypotheses and Conclusions.

Hypothesis	Conclusion
H1: <i>Social identity threats—lacking social recognition and ontological insecurity—are strong explanatory factors for populist attitudes</i>	Supported
H2: <i>The effects of threats to social identities are partially mediated by economic threats</i>	Supported
H3: <i>The effects of threats to social identities are partially mediated by cultural threats</i>	Supported

income decile makes the election of right-wing populist parties more likely. Equivalently, the recognition mechanisms could also have different effects depending on the ideological position.

Additionally, the exact relationship between threats to social identities, LOM indicators, and CBT indicators is still up for debate and several configurations could be plausible. Based on our data, it is not possible to identify a clear direction. Longitudinal or experimental data would be needed in order to get a deeper understanding of the causal processes taking place.

Also, our results are restricted to the German case and based on a data set that is only representative for the working population. We are therefore unable to draw conclusions about the German population as a whole. Non-working individuals and people in pension are not included on a data set that is only representative for the working population. It would be interesting to see if we can identify similar patterns when these two social groups are included. The results of previous studies indicate that for workers, the experience of a decline of status has a stronger impact on the tendency to vote for populist parties (Häusermann 2020; Kurer 2020).

Nevertheless, the results of our analyses clearly indicate that threats to social identities should be included more strongly in the discourse on the causes of populist attitudes in the future. Although many assumptions may already be implicitly contained in other explanatory approaches, we argue that it is essential to explicitly state these theoretical arguments and to test them using distinct empirical measurements.

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#### Supplemental Material

Supplemental material for this article is available online.

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#### 4.3 Results paper III: Recognition of social class identities and approval of climate change mitigation policies

Babst, Axel (under review). “Recognition of social class identities as an important factor for approval of climate change mitigation policies.”

**Title: Recognition of social class identities as an important factor for approval of climate change mitigation policies.**

**Key words: social identities, social recognition, climate change policies**

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### **Abstract**

Citizen cooperation is crucial to the success of climate change mitigation policies (CCMP). Political actors therefore have an interest in maximizing approval of CCMP. I introduce the recognition of social identities as a new mechanism that should strengthen the acceptance of CCMP. The results of my analyses, based on a data set representative of the German working population, show that the recognition of social identity is significantly related to the approval of CCMP. Furthermore, the recognition of social identity also strengthens trust in institutions and thus has indirect positive effects on the approval of CCMP. Recognition of social identities also cushions feelings of financial deprivation, although the analyses do not allow clear conclusions to be drawn regarding the relationship between economic deprivation and approval of CCMP. In each case, the specificity of the individual policy appears to be decisive. For policymakers, this article shows that when designing CCMP, costs for different population groups should be considered and communicated in a transparent and respectful manner.

### **Policy Insights**

- When designing CCMPs, policymakers should consider the potential impact on the behavior and living conditions of different social groups. This will make political institutions appear more competent and benevolent, which will increase trust in decisions.

- Respectful and appreciative communication is important when implementing policies. If citizens are informed transparently about how policies will affect their lives and if it is emphasized that potential needs and demands have been considered in the policy design, this increases acceptance of CCMPs.
- For groups that consider themselves financially disadvantaged, it is advisable not to use a blanket communication strategy, but rather to address the specific potential effects on everyday life depending on the policy and to take concerns and needs seriously through respectful communication.

## 1 Introduction

One of the greatest challenges facing humanity in the 21st century will be to mitigate human-made climate change and its consequences. Ten years after COP21 in Paris, scientific studies indicate that it may no longer be possible to limit global warming to 1.5 degrees Celsius above pre-industrial levels (Bossy et al., 2024; Engels et al., 2023). In view of the devastating consequences that climate change will have for humanity, it nevertheless seems important to prevent further warming as quickly as possible. To this end, humanity's CO<sub>2</sub> emissions need to be reduced, which could be achieved through comprehensive legislation and policies. This raises the question of the extent to which potential laws and policies would be accepted by citizens as cooperation among the population is crucial for success (Burstein, 2003). Political institutions depend on being perceived as competent, empowering, and benevolent to encourage cooperative behavior (T. R. Tyler, 1998). One way to convince citizens of institutions' good will is to understand people's concerns and reservations about the restrictions that may accompany policies and to demonstrate this understanding through actions of respect and appreciation (T. R. Tyler, 1997, 1998). The fact that the degree of perceived recognition affects political attitudes has already been discussed in theory (Fukuyama, 2018) and supported empirically (Babst et al., 2024; Groß, 2021; Steiner et al., 2023). In this article, I introduce the recognition of social identities as a new mechanism to promote the acceptance of climate change mitigation policies (CCMP).

To examine this research goal, I derive the connection between the acceptance of CCMP and the recognition of social identities. First, I specify the extent to which the acceptance of CCMP is a collective good problem (2.1). Then, I explain the functions of social identities and how they could increase acceptance of CCMP (2.2). I show how recognizing social identities promotes the acceptance of CCMP through indirect effects by signaling benevolence (2.3) and reducing economic fears (2.4). Building on these mechanisms, I develop three hypotheses, which I then test using data representative of the German working population. The results

support my first two hypotheses. Recognition of social class identity has a significant positive correlation with acceptance of CCMP and also indirectly influences the acceptance of CCMP positively by strengthening trust in institutions. While the correlation between recognition and financial deprivation is negative and significant, as expected, the correlation between financial deprivation and acceptance of CCMP is less clear. Here, the specific policy seems to be decisive in determining whether people with feelings of deprivation tend to reject or support it.

Overall, the results support the assumption that recognition of social identities is an important mechanism for increasing acceptance of CCMP. Based on the results, I can draw several conclusions to facilitate the work of practitioners. The results underscore that policymakers should anticipate potential concerns and reservations of citizens in advance when designing CCMP and communicate the implementation in a respectful manner to achieve high acceptance of the CCMP.

## **2 Theoretical framework**

### **2.1 CCMP as a tragedy of the commons**

The implementation of climate change policies is a collective good problem (Hardin, 1968; Olson, 2003). McGrath (2021) claims that it is the greatest collective good problem that humanity has ever had to solve. Short-term personal costs or behavioral restrictions of as many citizens as possible are needed to contribute to the long-term achievement of a goal that benefits all citizens and from which nobody can be excluded. There is a motivation to free ride as a certain minimum level of compliance is sufficient to achieve the goal and not everyone needs to participate. From a utility-maximizing perspective, individuals have no incentive to cooperate as this would entail costs for them, even though they could not be excluded from the benefits. Consequently, policymakers must ensure that enough people comply with the policies and that free riding becomes unattractive.

Ostrom (2010) illustrates how this problem can be solved by means of institutional arrangements that aim to enable citizens to practice self-organization. She defines eight criteria that these institutional arrangements must meet to be successful. These include among others the involvement of and accountability to users of resources; clear boundaries between users and non-users; the possibility of sanctions; and the recognition of users' rights. In the next section, I explain how the recognition of social identities contributes to fulfilling these criteria.

## **2.2 What are social identities and why is recognition an important mechanism?**

According to Tajfel and Turner (1979; 1986) a social identity is based on the cognitive and emotional attachment to a certain in-group (e.g.: men) of a social category (e.g.: gender). Individuals strive for a positive social identity which is the result of a favorable comparison of this in-group with a relevant out-group. According to Fukuyama (2018), social *recognition* is the most important evaluation criterion to perform group comparisons. An insufficient amount of perceived recognition can cause existential threats to social identities. Honneth (1992) even argues that recognition is a basic human need. Therefore, groups constantly fight for power to control public debates (Fukuyama, 2018).

The application of SIT with regard to the acceptance of CCMP is not new, but has previously been used in a different form under the heading of “environmentalism” (Brick et al., 2017; Brieger, 2019; Cole et al., 2022; Faure et al., 2022; Fielding & Hornsey, 2016; Wallis et al., 2022). These applications have in common that they already assume a certain level of existing environmental awareness within the in-groups. Instead of promoting the *substance* of the social identity, I shift the focus towards the underlying *mechanisms* of recognizing social identities. I argue that this need for recognition of social identities may have a direct impact on the acceptance of CCMP through two mechanisms: (1) enhancing self-esteem and self-efficacy and (2) activating group norms of reciprocity and solidarity.

### 1) Enhancing self-esteem / self-efficacy

Tajfel and Turner's (1979, 1986) basic assumption is that a positive social identity is closely linked to perceived self-esteem and self-efficacy, is therefore essential for humans, and the main motivation for gaining or enhancing a positive social identity. Several scholars found a correlation between positive social identities and self-esteem in empirical studies (Branscombe & Wann, 1994; Luhtanen & Crocker, 1992; Martiny & Rubin, 2016).

In addition, a positive social identity also promotes experiences of self-efficacy. Although experiences of self-efficacy and self-esteem are sometimes used synonymously (Gist & Mitchell, 1992), Bandura clearly distinguishes between the two: "Perceived self-efficacy is concerned with judgments of personal capability, whereas self-esteem is concerned with judgements of self-worth" (1997, p. 11). Recognition of social identities gives individuals the feedback that their choice of identity management strategies is accurate, which increases their confidence in their personal capabilities (Greenaway et al., 2015). Moreover, positive feedback confirms or enhances the cognitive representations that individuals have in their minds about their capabilities, fostering self-esteem and self-efficacy in an additional manner (Bandura & Cervone, 1986).

But how do self-esteem and self-efficacy resulting from recognition relate to the acceptance of CCMP? On a theoretical level, self-esteem and self-efficacy fit perfectly with Ostrom's (2010) proposed institutional arrangements. Ideally, these institutions should also be designed to strengthen citizens' personal responsibility and opportunities to participate in shaping the institutions. Due to the recognition of social identities citizens may have an increased self-esteem and self-efficacy, which in turn would enable them to become more involved in shaping the institutions. On an empirical level, the literature to date shows that increased self-esteem and self-efficacy lead to greater acceptance of CCMP and make pro-environmental behavior more likely (Hamann & Reese, 2020; Umit & Schaffer, 2020).

## 2) Activating group norms of reciprocity and solidarity

In addition to their evaluative function, social identities also have a cognitive function: social identities provide individuals with orientation and stability, as they convey information about citizens' relative position in society (Tajfel & Turner, 1979, 1986). In addition, group membership is also linked to certain in-group norms, which act as guidelines that help individuals maneuver through everyday life (Turner et al., 1994). Through membership in social groups, members internalize the norms of the in-group and can expect other individuals to follow them as well, making the behavior and actions of other individuals more predictable, trustworthy, and cooperation easier (Hornsey, 2008; Tanis & Postmes, 2005). This develops a norm of reciprocity (T. Tyler & Dawes, 1993). If group members adhere to the norm of accepting CCMP, they can expect other members to adhere to the same norm in return.

Furthermore, in-group members may feel a sense of solidarity that leads them to accept policies because they benefit other members of the in-group, even if they do not benefit the member themselves and only incur costs. Tyler & Dawes (1993) argue that social identities can lead to "ethical commitments" toward other members of the in-group to cooperate (T. Tyler & Dawes, 1993, p. 94). In emergencies, it even becomes apparent that this norm of solidarity carries more weight than the norm of reciprocity (Dawes et al., 1988; T. R. Tyler & DeGoey, 1995).

Based on the arguments presented in this section, according to which the recognition of social identities strengthens self-esteem and self-efficacy on the one hand and norms of reciprocal and solidaristic behavior on the other, I derive the first hypothesis for the analyses.

*H1: Higher perceived recognition of a social identity leads to stronger CCMP approval.*

### **2.3 Recognition of social identities as a signal of benevolence**

According to Ostrom (2010) institutions are the decisive component in solving collective good problems such as the acceptance of CCMP. Trust in institutions is crucial for policy acceptance as trust can be interpreted as a heuristic for people to evaluate a policy (T. J. Rudolph, 2017). Citizens do not usually have all the information necessary to evaluate the advantages and disadvantages of a policy. In the case of CCMP, it is a decision made under risk to accept these policies, as they involve personal costs with only abstract benefits (T. J. Rudolph, 2017). Devine et al. (2024) call this the “credibility problem” of institutions. When making decisions under risk, citizens follow their heuristics. If these heuristics dictate that institutions should be trusted, then the chances of the policy being accepted are good (Hetherington, 2005; T. J. Rudolph, 2017). Previous studies have empirically shown that trust in institutions is one of the most global predictors of the acceptance of CCMP or comparable variables (Davidovic & Haring, 2020; Dietz et al., 2007; Dirksmeier & Tuitjer, 2023; Fairbrother et al., 2021; Faure et al., 2022; Kitt et al., 2021; Kulin & Johansson Sevä, 2021; Malerba, 2022; Rhodes et al., 2017; Umit & Schaffer, 2020; Zannakis et al., 2015).

In times when trust in institutions is declining (Valgarðsson et al., 2025), I argue that the recognition of social identities can contribute to (re-)gain trust. It is essential for institutions to be perceived as trustworthy and benevolence is arguably the most important pre-condition of trustworthiness (Kim, 2005; Mayer et al., 1995) According to Mayer et al. (1995) “Benevolence is the extent to which a trustee is believed to want to do good to the trustor, aside from an ego-centric profit motive. Benevolence suggests that the trustee has some specific attachment to the trustor. [...] Benevolence is the perception of a positive orientation of the trustee toward the trustor” (Mayer et al., 1995, p. 718 f).

But how are recognition, benevolence, trustworthiness, and trust in institutions related? Institutions can act as providers of recognition. The metaphor of the “honorable bureaucrat” by Hart (1984) is useful to illustrate this idea. By shaping and interpreting policies in a “moral” way (Hart, 1984), political actors (politicians, parties, civil servants, etc.) act as providers of

recognition, sending signals to their citizens (Hart, 1984; Kim, 2005; Levi, 1998). Depending on how these signals are interpreted, citizens may feel that their problems are seen or they may feel abandoned by political actors. If people feel recognized and that their concerns are considered, this is an indication of being treated fairly. The degree of perceived procedural justice is a decisive factor in determining the trustworthiness of political institutions (T. R. Tyler, 1997). If citizens feel respected and recognized based on these signals, they are more likely to consider the institutions trustworthy as they interpret these signals as “good will” (T. R. Tyler, 1998). Thus, I assume that the recognition of social identities has indirect effects on the acceptance of CCMP through increased trust in institutions:

*H2: Higher perceived recognition of a social identity leads to more trust in political institutions and therefore results in stronger approval of CCMP.*

#### **2.4 Recognition of social identities to weaken perceived economic threats**

CCMP are often framed as a trade-off between economic growth and climate protection (Drews et al., 2019; Jackson, 2009), whereby one cannot be achieved without limiting the other. This is accompanied by fears that CCMP will inevitably lead to economic damage through rising prices, job losses, higher living costs, or lifestyle restrictions (Morgenstern et al., 2002; Shwom et al., 2010; Tvinnereim & Ivarsflaten, 2016; Vona, 2019). Regardless of whether this framing is accurate or not, the prosperity hypothesis states: “when economic conditions are good, people are environmentally concerned and assign a high priority to environmental problems; however, when economic conditions get worse, citizens’ attention to environmental problems dwindles away” (Hartmann & Preisendörfer, 2023, p. 2). Empirical studies to date support the assumption that fears of economic problems have a negative impact on the acceptance of climate change mitigation policies, environmental attitudes or fears of climate change (Hartmann & Preisendörfer, 2023).

How can the recognition of social identities alleviate these economic fears and thus contribute to the acceptance of CCMP? First, there are studies not supporting or even contradicting the trade-off hypothesis and most of them use subjective measures of the financial situation (Bakaki & Bernauer, 2018; Clark & Carlisle, 2020; Hartmann & Preisendörfer, 2023; Kachi et al., 2015; Mildenerger & Leiserowitz, 2017). This could mean that subjective assessments of financial situations are not a good indicator to use. Or it could mean that subjective perceptions are more important for attitudes than objective circumstances.

This is apparently accompanied by the assumption that individuals do not expect economic disadvantages for themselves, but at the same time fear losses at the group level (Kallbekken & Sælen, 2011). This can include increases in the national or local employment rates (Kahn & Kotchen, 2011; Meyer, 2022; Scruggs & Benegal, 2012), a weakening of the national economy (Brulle et al., 2012; Conroy & Emerson, 2014; Kenny, 2020), or the worsening of the situation for low income households (Maestre-Andrés et al., 2019). More recent studies demonstrate that the interplay between economic downturn and environmental attitudes is more complex than the trade-off hypothesis suggests (Lundquist, 2025; L. Rudolph & Gomm, 2024).

My assumption is therefore that objective financial circumstances are less decisive for the acceptance of CCMP than the subjectively perceived threat of possible economic problems. Again, the recognition of social identities could be a mechanism for cushioning these fears. When individuals feel that their social identity is recognized by society and politics, this sends signals to the group members. In addition to the signaling effects already described in the previous section 2.3, group members may also interpret recognition as meaning that their group membership is perceived by outsiders. This can be particularly helpful when individuals find themselves in difficult financial situations. Through group membership, individuals can, for example, access social capital from the in-group to compensate for a lack of economic capital. If individuals feel recognized, they receive feedback that they are part of a safety net from which they can draw resources in an emergency.

Thus, the recognition of social identities may reduce the fear of economic losses from CCPP and may therefore have indirect positive effects on the acceptance of CCMP.

*H3: Higher perceived recognition of a social identity lowers potential existential threats due to financial hardship which in turn fosters the approval of CCMP.*

### **3 Data & methods**

#### **3.1 Data**

Germany is an interesting population to study. On the one hand, politicians have shown to be responsive in the past and initiated the phase-out of nuclear power after the reactor accident in Fukushima in 2011 (BASE, n.d.). In addition, the Green Party put forward its own candidate for chancellor for the first time in the federal election campaign in 2021. Yet, the Russian invasion of Ukraine and the subsequent halt to gas supplies have led to public criticism of the country's dependence on Russian gas for its energy supply. Most recently, the right-wing populist AfD party has been gaining ground in the last federal election, taking positions that range from denying climate change to downplaying its seriousness (Küppers, 2024). These developments split the population into different camps, which is making it particularly difficult to reach broad acceptance for CCMP.

I analyze a data set that is only representative for the German labor force, but not the entire population (for a detailed description of the socio-demographic composition and a comparison with official micro-census data see A1 in the appendix). While this fact limits the scope of the results, it was inevitable as the primary research interests of the research project focused on the impacts of the Covid pandemic on occupations (for a detailed description see A2 in the appendix). The data set contains 2,250 interviews and was collected in February and March 2021 through web-based interviews and used the Payback Panel provided by Kantar. The advantage of the Payback Panel is that administrators actively recruit candidates into the panel based on

defined criteria and can therefore counteract the under-representation of offline groups. As none of the items used in the analyses were mandatory to answer in the questionnaire, this accumulated missings which I decided to not include in further steps, hence  $n = 1455$  cases remain for the analyses. The overrepresentation of self-employed persons and East Germans intended by quotas is compensated by means of design weights. A detailed presentation of the distribution of all variables of interest in the appendix A3 illustrates that the distributions do not show any major deviations.

### **Dependent variables**

I use the approval of six different CCMP that capture two main topics, mobility and nutrition: 1) the introduction of a speed limit on German autobahn (highways), 2) carbon tax on fossil fuels, 3) expansion of emission areas in city centers, 4) meat tax, 5) tax on plastic packaging, and 6) halt of subsidies for conventional agriculture. A4 illustrates the distribution of (dis-)agreement with the six policies. I conducted an exploratory factor analysis in which I included all six items at once and extracted two factors that align with the theoretical expectations, while fulfilling the criterion of an Eigenvalue  $> 1$  (1.38 for the mobility policies and 1.36 for the nutrition policies). A3 illustrates the exact formulations as well as the results of the factor analysis. Positive values indicate a higher level of policy acceptance compared to average respondent, while negative values signal a lower degree of policy approval than the overall average. Furthermore, I will use the single items as dependent variables in the robustness checks.

### **Main independent variable**

Though I put the content of social identity in the background and focus on the mechanism of recognition of social identities, I must make a social identity salient in the context of measuring recognition. I decided to use social class as this is the most universal and most important social category in modern working societies. Belonging to a certain social class impacts life in

multiple facets: educational attainment, socio-economic status, life chances, health, social capital all depend on or correlate with social classes (Albertini et al., 2020; Breen & Jonsson, 2005; DiPrete, 2002; Goldthorpe, 2016; Robert Koch-Institut, 2018; Whitley et al., 2022). Thus, I measure perceived recognition of the social class with four items, one example being: “The work of people like us is no longer valued today”. Due to the questionnaire design respondents were aware that I refer to their social class with the formulation “people like us”. Respondents could choose between eight different options or also state another class term in an open answer field if they did not find a suitable category. Again, the exact formulations of all four items as well as the factor loadings are part of A3. A positive value of the extracted factor indicates a higher level of recognition compared to the average participant.

### **Mediators**

#### a) trust indicator

For the construction of the trust indicator, I rely on a standard scale that asks for trust an individual puts into different institutions. Respondents could give their answers using a five-point scale. I conducted a factor analysis that resulted in two distinct factors. I only use the factor that captures the trust in political institutions (government, parliament, politicians, parties). A positive value means that the respondent has more trust in political institutions compared to the mean.

#### b) socio-economic indicators

First, I use a single item that asks respondents to rate their satisfaction with their financial situation on a five point-scale. I recoded the item in a way that a high value equals “absolute deprivation”. Second, I cover the respondent’s perception of their relative financial standing by asking whether they feel that they get their fair share. Again, a high value means that they feel relatively deprived. I z-standardize both items to align the scales and compare the effect sizes of subsequent regression coefficients. Lastly, I use three items that capture worries about their

job security, one example being: “I'm afraid that I won't be able to meet the challenges of digitization”. I extracted a factor that combines the answers to the three statements. Having a positive value means that the person is more worried than the average respondent.

### **Control variables**

The objective socio-economic measures contain the occupational group, educational attainment (low/medium/high), and job characteristics. The full list of occupational groups and the distributions of all variables are reported in the appendix (A3 and A5). As further controls I used demographic information. These include age, gender, migration background (respondent or at least one parent not being born in Germany), East or West German residence and generation (Post-WWII, Baby-Boomer, Cold War, Generation Y, Millennials).

## **3.2 Methods**

First, I use multivariate regression analyses to assess whether the recognition of social class is significantly and positively related with the approval of climate change policies. I start with a model that includes social class recognition and demographic controls and add indicators of the alternative approaches in two steps for each mediator. For the robustness check, I apply the same strategy by using the six single items as dependent variables to account for potential variance in the different policies. You can find the regression tables in A5.

With structural equation models, I take a finer graded look at the mechanisms that take place between the main predictor, the indicators of the alternative explanations and demographic controls. I conduct the analyses with the lavaan package of the statistical software R4.3.1 (Rosseel, 2012).

## **4 Results**

### **4.1 Social class recognition as an important predictor of CCMP approval**

In this section I test the first couple of hypotheses to assess whether social recognition significantly affects the approval of CCMP and whether any significant effects persist after controlling for indicators of alternative explanatory approaches and demographic information (H1). Figure 1 illustrates the results of multivariate regression analyses that use the factor regarding approval of mobility restrictions as the dependent variable. In the first model, which only contains the class recognition factor together with the control variables, social recognition has a significant and positive effect. An increase of one standard deviation in social class recognition is associated with an increase of roughly 0.2 standard deviations in the approval of stricter CCMP. In a second model, I include the subjective socio-economic indicators. The effect remains significant and considerable at close to 0.2 standard deviations. At the same time, none of the socio-economic indicators reveal significant effects at  $p < 0.001$ . In Model 3, I include institutional trust and observe quite a drop-off in the effect size of social recognition (0.12 standard deviations). Still, the effect remains significant. Institutional trust is now the strongest predictor of the approval of CCMP with an effect size of 0.26 standard deviations.

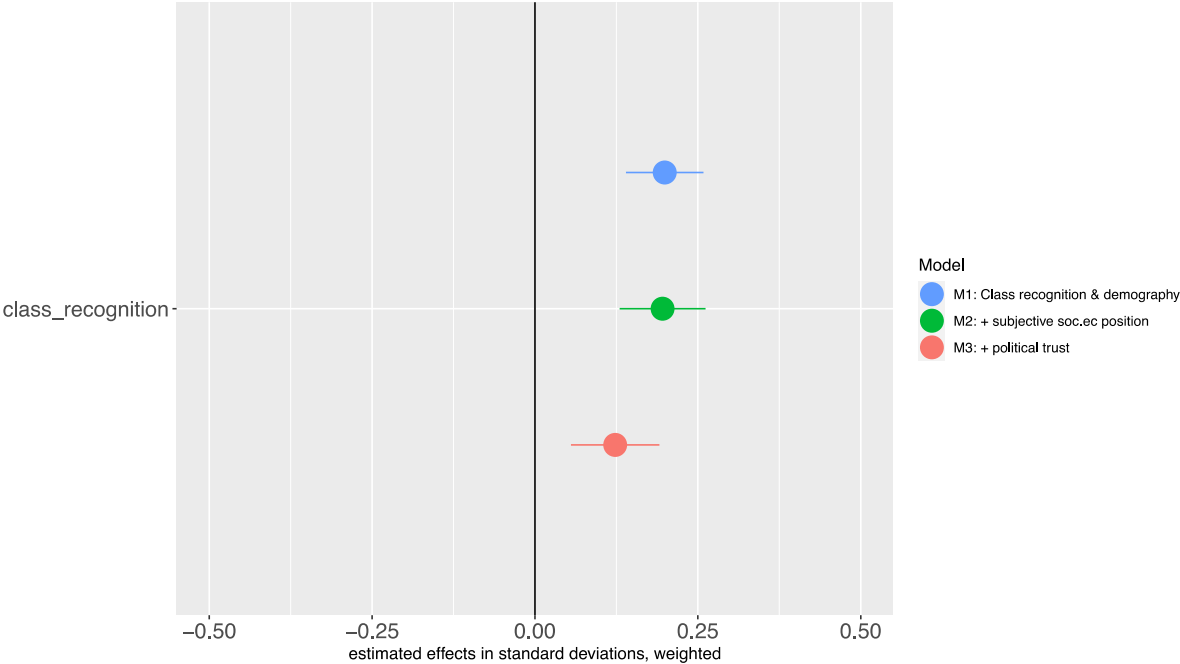


Figure 12: Coefficients of class recognition in weighted regression analyses with mobility factor as dependent variable

Overall, these initial results confirm the first hypothesis: the recognition of social classes has a significant and positive impact on the approval of CCMP and this relationship remains significant even after controlling for indicators of two alternative approaches (H1).

Using the factor that contains the approval of three policies that revolve around nutrition regulations as the dependent variable, I find the same patterns (figure 2). In the first model, social class recognition has a positive and significant correlation with the acceptance of these nutrition measures. The effect size is smaller compared to the car policies at 0.18 standard deviations in the first model. Adding the several indicators of the other theoretical approaches slightly decreases the effect size but the effect remains significant until the last model. Again, introducing institutional trust has the biggest impact on the indicator of social class recognition. First, the drop-off in the effect size is the largest and also the effect is not significant anymore at  $p < 0.001$ . Still, these patterns again confirm the hypothesis.

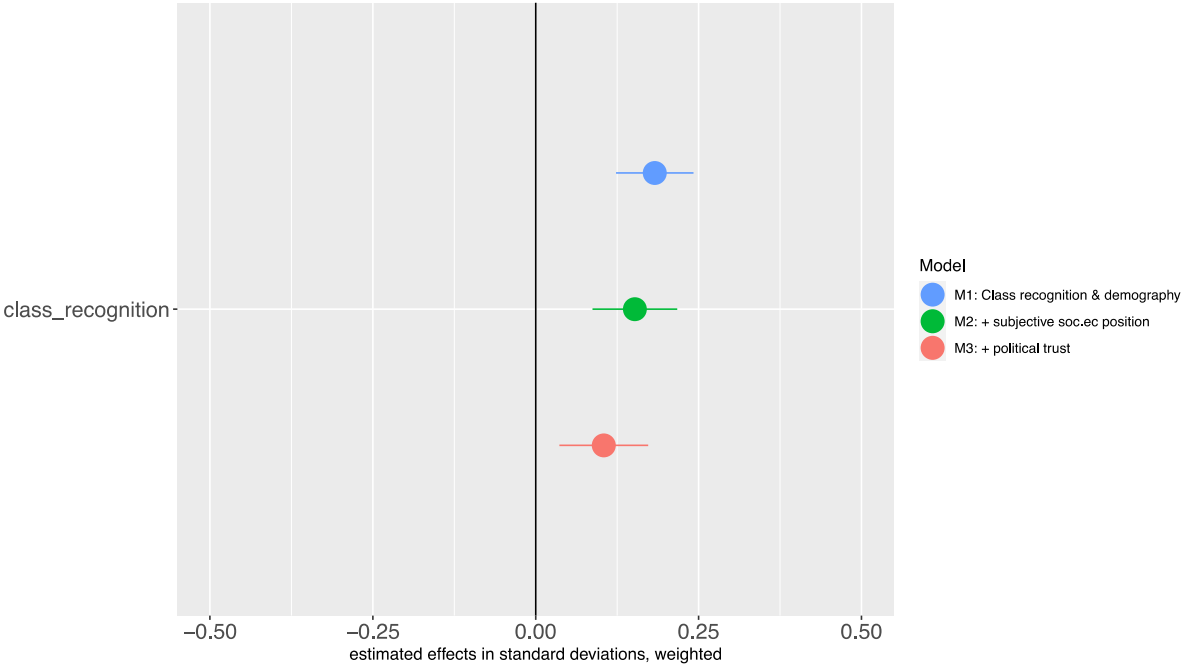


Figure 13: Coefficients of class recognition in weighted regression analyses with nutrition factor as dependent variable

## **4.2 Indirect effects of social class on approval of climate change mitigation policies**

The goal of this section is to have a more detailed look at the relationship of social class recognition with the two alternative explanatory approaches and their respective effects on the approval of CCMP. I use structural equation models (SEM) to disentangle these relationships. I assume that social class recognition works as an antecedent of absolute deprivation and institutional trust. Both variables in turn have a direct influence on the acceptance of CCMP. In this constellation, social recognition would thus have indirect effects in addition to the direct effects that were basically already evident in the previously illustrated regression analyses, in that recognition effects are mediated via third-party variables.

In Figure 3, we see the results for the modeling in which the three items on mobility form a common factor and thus represent the dependent variable. First, we see that all three latent constructs - social class recognition, institutional trust, and acceptance CCMP - form the advised factors. The loadings are mostly acceptable to very high. Only the loading of the item on the speed limit on the highway falls below the recommended threshold of 0.6 with a loading of 0.57.

Looking at the correlations between the variables, we can first note that the recognition of social class has a significant and positive effect on the acceptance of CCMP at 0.16 standard deviations.

CFI = 0.955  
 TLI = 0.944  
 RMSEA = 0.055

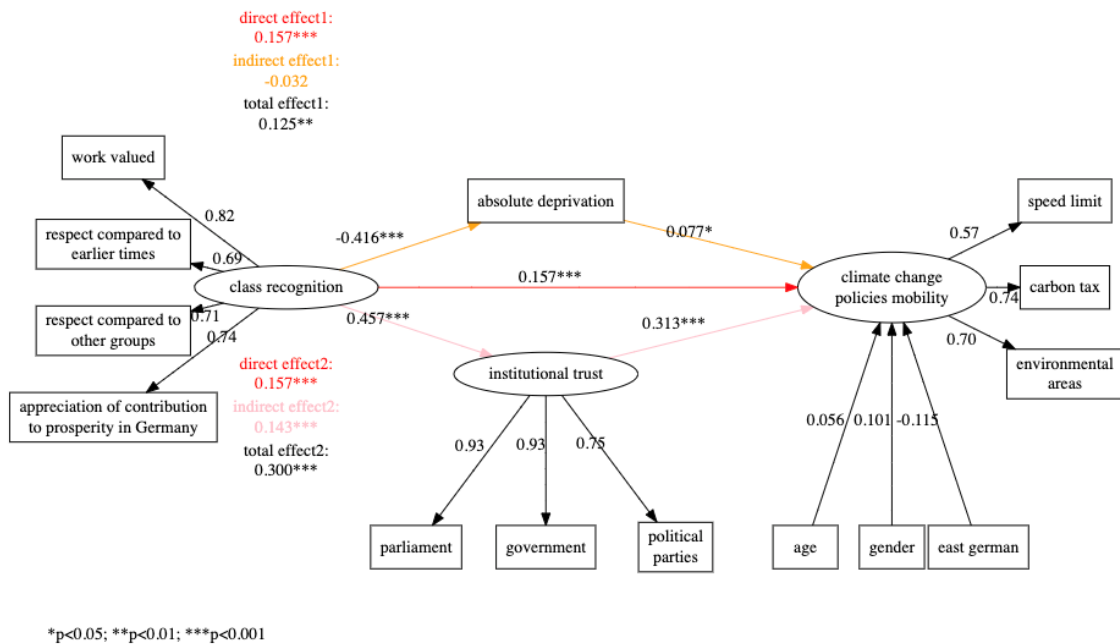


Figure 14: SEM with mobility factor as dependent variable

If we now look at the first path, we see that social class recognition is highly correlated with absolute deprivation and this relationship is thus significant. Those who feel recognized one standard deviation more than the average feel less deprived in return by 0.416 standard deviations. This negative correlation in the first step is now followed by an unexpected positive and significant correlation between absolute deprivation and agreement with CCMP. Those who rate their situation worse are nevertheless more likely to approve of CCMP. This is an unexpected result and accordingly the indirect effect via this path is also negative, thus ensuring that the total effect decreases.

The results of the second path again clearly confirm hypothesis 2. Social class recognition has a high, positive and significant effect on institutional trust, at 0.457 standard deviations. Institutional trust, in turn, has a positive and significant effect of 0.313 standard deviation on the acceptance of CCMP. In addition to the direct effect of 0.157 standard deviations, the indirect

effect via institutional trust thus adds another 0.143 standard deviation and thus almost doubles the total effect.

I conduct the same analysis for the second item battery concerning nutrition and find again a set factor structure (figure 4). Only the assessment of cutting subsidies for conventional agriculture has a lower loading than recommended at 0.56. Overall, similar tendencies as in the previous structural equation model emerge. First, the recognition of social class has a positive and significant influence on the acceptance of the policy factor. However, the effect size is weaker this time with 0.132 standard deviations.

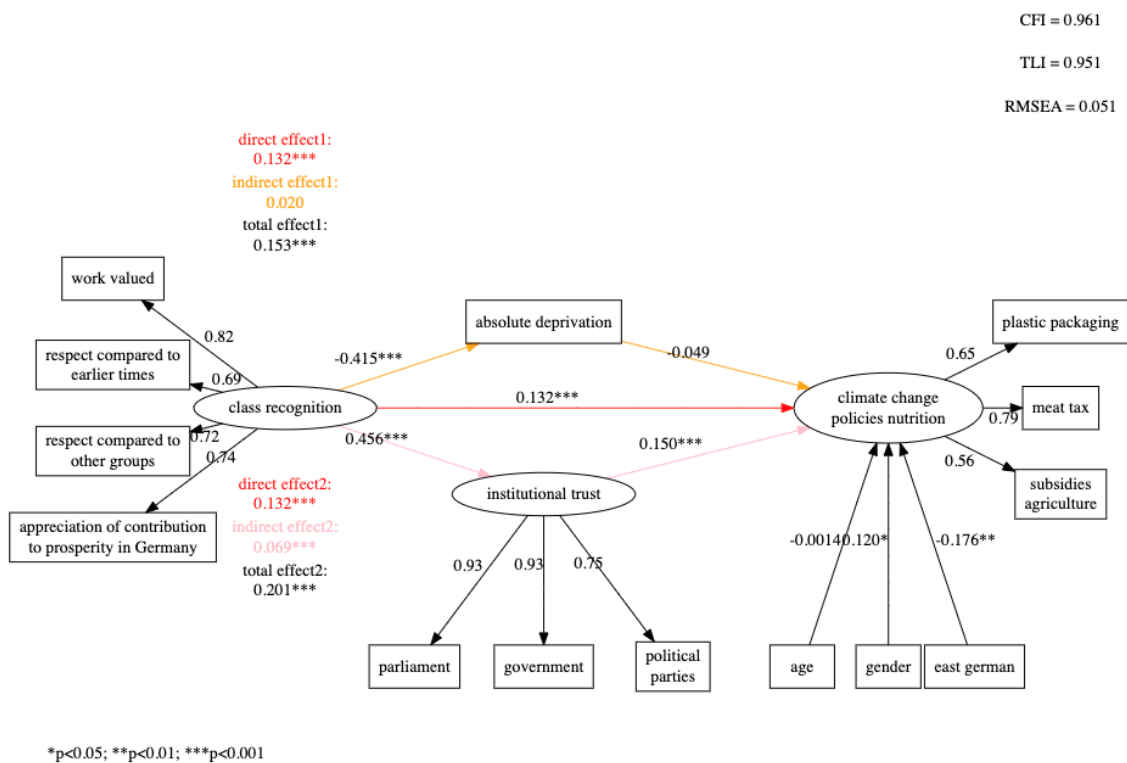


Figure 15: SEM with nutrition factor as dependent variable

Since the first part of each of the paths indicates the same correlations as before, I focus only on the second part of the indirect effects. Here I now see slight differences compared to the previous model. First, absolute deprivation now shows the expected negative correlation. However, this is not significant and correspondingly small, which is why the indirect effect is again

not significant. Institutional trust also has a significantly smaller effect on this policy bundle. Here, the effect is only 0.15 standard deviations. Nevertheless, it remains significant and increases the total effect by about 50 percent.

In sum, I can conclude that Hypothesis 2 can be confirmed. Social class recognition has an additional indirect effect on the approval of CCMP through influencing institutional trust. While social class recognition also has significant effects on the perception of absolute deprivation, this mediator does not have a significant effect in relation with the approval of the policy factors or only shows a significant effect in an unexpected direction and is that small that the indirect effect itself is not significant (absolute deprivation), leading me to reject hypotheses 3.

#### **4.3 Robustness check: examining the relationships with each policy**

As the literature suggests that approval rates and effects of certain explanatory variables vary depending on the specific policy asked for, I apply the same analyses and modeling strategy as in 4.1) for each of the six single items and compare the results. This is also reasonable, since the factor structure is not ideal, and the loadings of some items are under the threshold of 0.6. I report the complete tables of the regression analyses in the appendix (A5) and only focus on the results that either have an implication for the hypotheses or stand out compared to patterns presented so far.

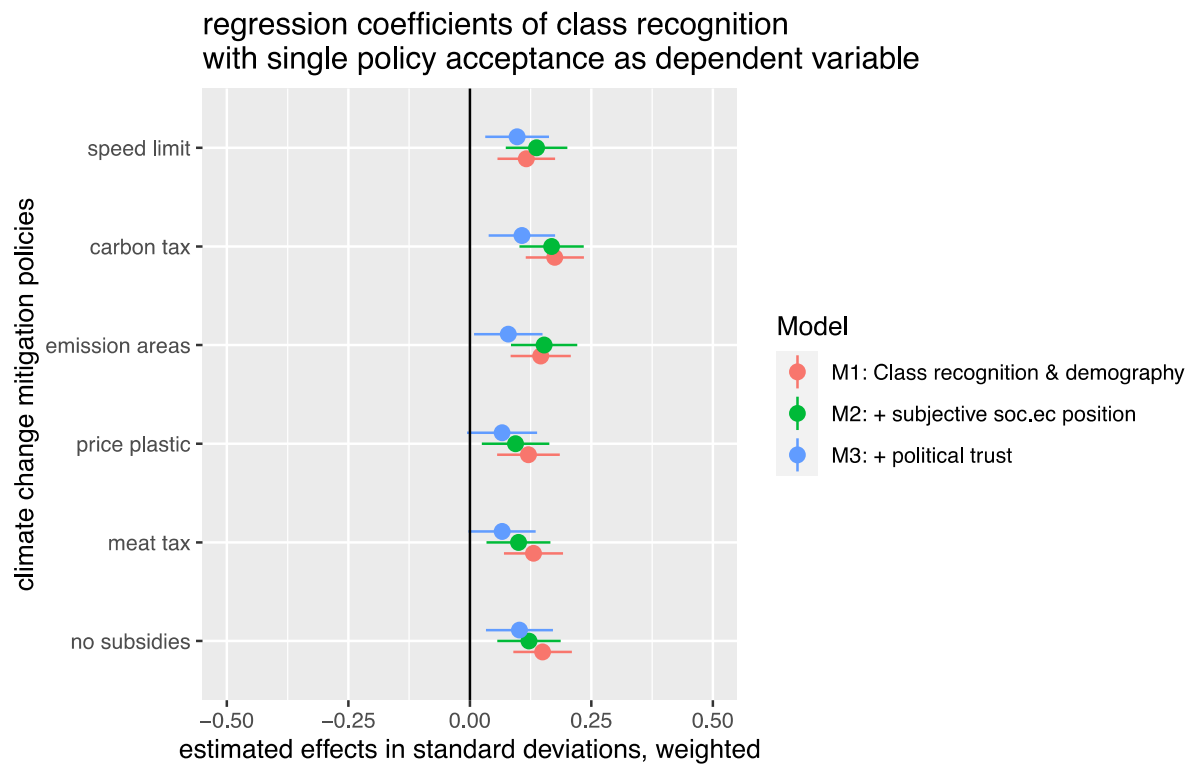


Figure 16: regression coefficients for class recognition with single policy acceptance as dependent variable

Figure 5 shows the regression coefficients of class recognition when applying the same modeling strategy as before, but with the acceptance toward each CCMP as a single dependent variable. In general, the social recognition factor correlates significantly with the approval of all CCMP when controlled for socio-demographics. The effect sizes range from 0.18 standard deviations (tax on fossil fuels) to 0.12 standard deviations (implementing a speed limit on highways). Again, extending the models with all the control variables reduces the effect sizes and also has an impact on the level of significance. In three cases the effect remains significant at  $p < 0.01$  (tax on fossil fuels, implementing speed limits on highways, no subsidies for conventional agriculture anymore), in one case (extending emission areas) the effect is only significant at  $p < 0.05$ , and in two cases the effect is not significant anymore (price plastic packaging, introducing a meat tax).

Institutional trust has always significant effects on the six dependent variables. Again, as before, the introduction of institutional trust leads to a sharp decrease in the effect size of the recognition indicator. Out of the subjective socio-economic measures only those who feel deprived in

absolute terms show significantly less approval of abolishing subsidies for conventional agriculture.

Overall, the results confirm the first hypothesis: social recognition correlates with a higher approval of CCMP and this effect persists for four of the six potential policies even after controlling for indicators of several alternative explanations.

## **5 Discussion**

The goal of this paper was to introduce the recognition of social identities as a new theoretical construct that impacts the approval of CCMP. While social identities have been used to explain the approval of CCMP in the literature before (Brick et al., 2017; Brieger, 2019; Cole et al., 2022; Faure et al., 2022; Fielding & Hornsey, 2016; Wallis et al., 2022), my contribution is to shift the focus from the *substance* of the social identity to the *mechanism* of recognizing a social identity. The findings indicate that social class recognition is indeed a significant predictor of the acceptance of CCMP. Furthermore, I enhanced the analysis by examining the extent to which social recognition influences proven predictors of CCMP approval like institutional trust (Davidovic & Haring, 2020; Dirksmeier & Tuitjer, 2023; Fairbrother et al., 2021; Faure et al., 2022; Kitt et al., 2021; Kulin & Johansson Sevä, 2021; Umit & Schaffer, 2020) and socio-economic status (Clark & Carlisle, 2020; Dienes, 2015; Kachi et al., 2015; Kahn & Kotchen, 2011; Kenny, 2020). Adding socio-economic variables and institutional trust, I show that the significant effect of social recognition persists. Second, social recognition as an antecedent of the institutional trust indirectly promotes the approval of CCMP. However, while social class recognition is indeed negatively associated with financial fears, strengthening the argument that recognition can reduce such fears, absolute deprivation correlates differently depending on the specific policies. Especially with respect to the approval of mobility policies, I find unexpected positive associations with the overall factor. At a closer look, this result is not surprising: The higher the level of deprivation, the higher the acceptance of speed limits on highways and

enhanced emission areas. The reason may be that both policies do not impact people with lower financial status as much in their daily lives (Büchs & Schnepf, 2013; Klein & Taconet, 2024). They may not use highways as often, drive slower to reduce the usage of gas to save money or do not even own a car. Furthermore, they probably do not live in areas that would be affected by new emission areas as these are usually close to the city center (Umweltbundesamt, n.d.), where housing is generally more expensive.

In addition, the analyses are subject to significant limitations. First, it should be noted that I use a cross-sectional data set that does not allow any definitive conclusions about causal mechanisms. Although the analyses reveal a significant correlation between the recognition of social identities and the acceptance of various CCMP, the proportion of explained variance is relatively low. In the first models, the adjusted  $R^2$  is around nine percent in each case. Even when subjective economic indicators and institutional trust are added, this value barely rises to 15 percent, which limits the explanatory power. Moreover, the sample is representative of the German labor force, but not of the German population as a whole due to other primary research interests in the wake of the Covid pandemic. Therefore, the scope of the results is limited and does not allow to draw any conclusions on the whole society. In this respect, it is necessary to replicate these analyses in the future using a representative data set to verify whether the correlations hold. Lastly, I only used a handful of potential policies that capture specific areas of daily life.

## **6 Conclusions**

Based on these findings, I conclude that social identity recognition may be an important mechanism for implementing CCMP. However, this finding can only serve as a starting point for deeper analyses. Future analyses should examine the extent to which the recognition of other

social identities also plays a role. The recognition of generation-specific identities, for example, offers an interesting case (Jütersonke & Groß, 2023).

For policymakers, several recommendations for action can be derived from the results of this paper. The way CCMP are communicated is important for the extent of their approval. The policies send signals to the population about the extent to which certain social identities are recognized or not. Addressing the concerns and needs of those affected by CCMP in a respectful manner can increase acceptance of the implementation (Irwin, 2025). When proposing policies, policymakers should therefore address the concerns and fears of citizens and strive for communication at eye level. This not only increases the likelihood that citizens will feel heard and seen, but also strengthens citizens' trust in political institutions. It is precisely this trust in institutions that is an important prerequisite for the feasibility of CCMP. In addition, policymakers should always explain the economic significance of their policies and present solutions for those negatively affected. In doing so, policymakers show that they take economic threats to certain social identities seriously and take them into account in their planning. However, it seems to be important to address the specific economic threat. If, for example, a speed limit on highways is not perceived as a threat, then compensation does not necessarily have to be offered here. However, if certain social groups feel that their jobs could be lost, then policymakers should offer alternatives here, such as jobs in other sectors. In this way, policymakers can make people feel that their opinions count and that they are not being ignored when landmark societal decisions are made.

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## Appendix

### A1 Description of study and data

	Analysis sample	German labor force 2021	German population 2021
<b>Sex</b>			
Women	41.4%	46.8%	50.7%
Men	58.6%	53.2%	49.3%
<b>Age groups</b>			
18 to under 35 years old <sup>1</sup>	24.4%	30.4%	22.9%
35 to under 50 years old	32.6%	31.4%	18.6%
50 years or older	43.0%	38.3%	44.5%
<b>East-West<sup>2</sup></b>			
Residence in Eastern state of Germany (including Berlin)	40.2%	18.7%	19.4%
Residence in Western state of Germany	59.8%	81.3%	80.6%
<b>Migrational background<sup>3</sup></b>			
No migrational background	87%	74.4%	72.8%
migrational background	12.6%	25.6%	27.2%

Source: Federal Office for Statistics

1: The official register includes ages 15 to 17 as well

2: Quotas were set to oversample the proportion of Eastern German residents to 40 percent

3: 5 respondents did not want to answer the related questions in the survey

## **A2**

The main goal of this study was to examine changes in the occupational recognition during the covid-19 pandemic in Germany and the compliance with infection control measures – especially at the workplace. Due to these two research questions we had to restrict our sample to the working population only.

For the data collection, we cooperated with a private company called “Kantar”. This is one of the market leaders in Germany and also cooperates with one of the biggest German surveys in social sciences – SOEP (socio-economic Panel). Furthermore, the specific sample we used was part of their “Payback Panel”. Payback is a service provider that awards bonus points and rewards for purchases from certain cooperation partners in the retail sector. The panelists were therefore recruited offline, which was intended to counteract possible selection biases that can usually lead to distortions in the sample in online surveys. According to Kantar, their “Payback Panel” consists of more than 120 000 individuals and is updated at least once a year.

variable	wording	n	mean	sd	factor loadings	Communalities
<b>dependent variables: climate change mitigation policies</b>						
<b>mobility policies</b>	The maximum speed allowed on German highways should be limited to 120 km/h.	1455	2.65	1.51	0.64	0.34
	The taxation of gas and diesel for passenger cars should be increased noticeably.	1455	1.78	1.14	0.71	0.58
	Driving ban zones for vehicles with high particulate matter emissions should be further expanded.	1455	2.77	1.39	0.68	0.47
<b>nutrition policies</b>	Disposable packaging should be banned, even if it makes taking food and drinks much more expensive and complicated.	1455	3.27	1.25	0.61	0.41
	The taxation of meat products should be increased considerably.	1455	2.67	1.33	0.80	0.62
	Financial support for conventional agriculture should be eliminated, even if it makes food noticeably more expensive.	1455	2.56	1.22	0.58	0.34
<b>main independent variable: social identity threat explanation</b>						
<b>class recognition<sup>1</sup></b>	The work of people like us is no longer valued today.	1455	3.41	1.02	0.76	0.65
	People like me used to be respected more.	1455	3.43	1.06	0.73	0.49
	People like me are given little respect by most others.	1455	2.93	1.06	0.70	0.53
	The contribution of people like us to Germany's prosperity is no longer sufficiently appreciated today.	1455	3.53	1.03	0.76	0.58
<b>mediators: economic threats</b>						
<b>relative deprivation</b>	When you compare yourself to other citizens living in Germany: Do you think you... [receive much more/much less than your fair share]	1455	3.47	0.78		
<b>job worries</b>	I'm afraid that I won't be able to meet the challenges of digitization.	1455	1.88	0.98	0.43	0.19
	I am worried about my job.	1455	2.06	1.13	0.73	0.53
	I'm afraid that I'll be able to afford less and less despite working.	1455	2.84	1.27	0.62	0.39
<b>absolute deprivation<sup>2</sup></b>	How would you rate your financial situation today?	1455	3.26	0.86		
<b>mediator: institutional trust</b>						
<b>institutional trust</b>	How much do you trust... the federal government?	1455	2.58	1.02	0.91	0.88
	How much do you trust... the national parliament?	1455	2.56	1.05	0.90	0.88
	How much do you trust... political parties?	1455	2.27	0.86	0.71	0.60

1) values reversed before factor analysis

2) values reversed for analyses

3) for all items, 5-point Likert-scales were used to measure respondents' degree of (dis-)agreement

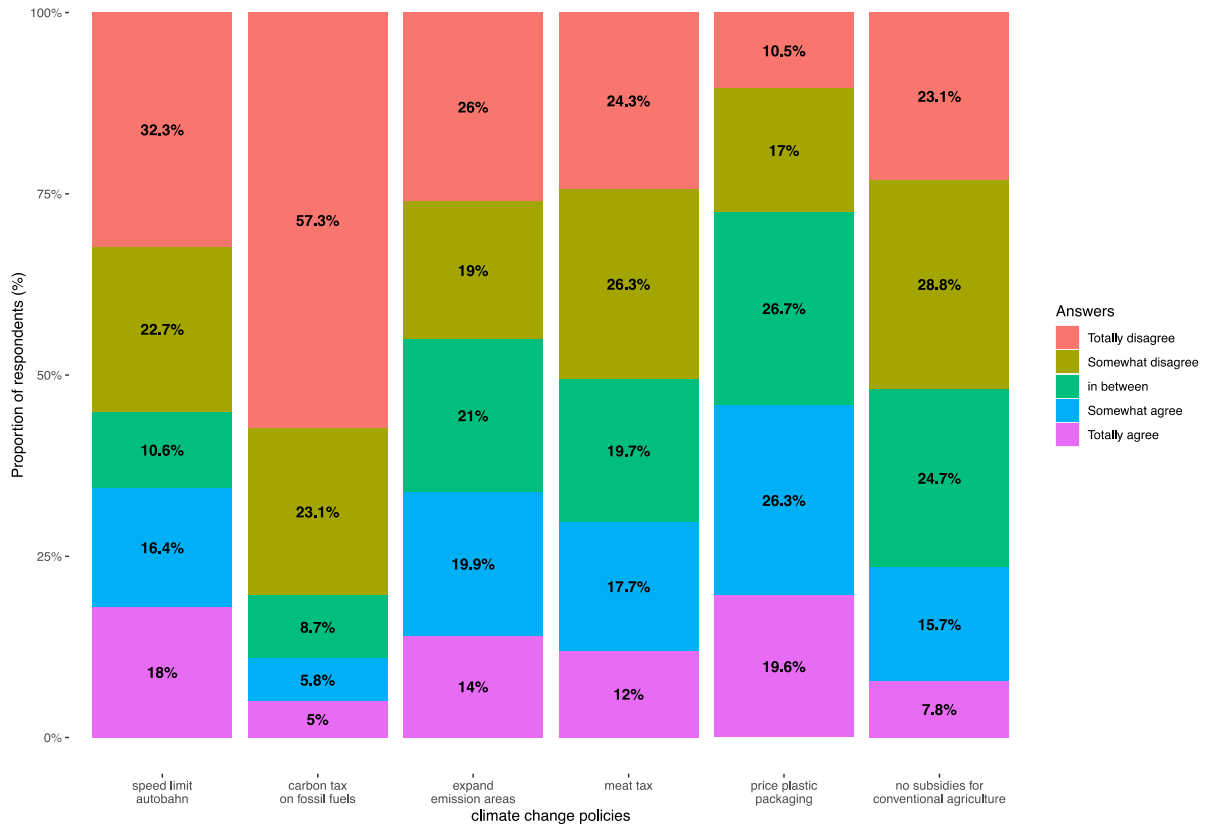
variable	wording	n	mean	sd	factor loadings	Communalities
<b>dependent variables: climate change mitigation policies</b>						
<b>mobility policies</b>	The maximum speed allowed on German highways should be limited to 120 km/h.	2185	2.67	1.51	0.64	0.34
	The taxation of gas and diesel for passenger cars should be increased noticeably.	2201	1.79	1.15	0.71	0.58
	Driving ban zones for vehicles with high particulate matter emissions should be further expanded.	2196	2.82	1.39	0.68	0.47
<b>nutrition policies</b>	Disposable packaging should be banned, even if it makes taking food and drinks much more expensive and complicated.	2211	3.32	1.24	0.61	0.41
	The taxation of meat products should be increased considerably.	2210	2.69	1.35	0.80	0.62
	Financial support for conventional agriculture should be eliminated, even if it makes food noticeably more expensive.	2182	2.55	1.23	0.58	0.34
<b>main independent variable: social identity threat explanation</b>						
<b>class recognition<sup>1</sup></b>	The work of people like us is no longer valued today.	2231	3.39	1.02	0.76	0.65
	People like me used to be respected more.	2229	3.36	1.07	0.73	0.49
	People like me are given little respect by most others.	2230	2.88	1.05	0.70	0.53
	The contribution of people like us to Germany's prosperity is no longer sufficiently appreciated today.	2231	3.48	1.03	0.76	0.58
<b>mediators: economic threats</b>						
<b>relative deprivation</b>	When you compare yourself to other citizens living in Germany: Do you think you... [receive much more/much less than your fair share]	2223	3.45	0.77		
<b>job worries</b>	I'm afraid that I won't be able to meet the challenges of digitization.	2229	1.88	0.96	0.43	0.19
	I am worried about my job.	2187	2.10	1.13	0.73	0.53
	I'm afraid that I'll be able to afford less and less despite working.	2216	2.85	1.27	0.62	0.39
<b>absolute deprivation<sup>2</sup></b>	How would you rate your financial situation today?	2228	3.25	0.87		
<b>mediator: institutional trust</b>						
<b>institutional trust</b>	How much do you trust... the federal government?	2223	2.56	1.02	0.91	0.88
	How much do you trust... the national parliament?	2231	2.54	1.06	0.90	0.88
	How much do you trust... political parties?	2227	2.25	0.86	0.71	0.60

1) values reversed before factor analysis

2) values reversed for analyses

3) for all items, 5-point Likert-scales were used to measure respondents' degree of (dis-)agreement

Do you agree to implement the following policies to mitigate climate change?



## A5

*Weighted models: mobility factor as dependent variable*

	(1)	(2)	(3)
(Intercept)	0.024 (0.227)	0.032 (0.227)	0.096 (0.217)
class recognition	0.199*** (0.030)	0.196*** (0.034)	0.123*** (0.035)
age	0.024 (0.085)	0.025 (0.085)	0.012 (0.083)
female	0.014 (0.062)	0.018 (0.062)	0.033 (0.060)
no migrational background (ref: migrational background)	-0.079 (0.088)	-0.079 (0.088)	-0.058 (0.086)
no disclosure of migrational background	0.258 (0.329)	0.261 (0.329)	0.228 (0.354)
East German (ref: West German)	-0.133* (0.058)	-0.130* (0.059)	-0.115* (0.057)
no disclosure of East/West German identity	-0.005 (0.176)	-0.007 (0.175)	0.051 (0.161)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.081 (0.228)	0.085 (0.227)	0.044 (0.229)
generation Cold War (1965-1980)	0.096 (0.113)	0.094 (0.113)	0.078 (0.108)
generation Gen Y (1981-1994)	-0.002 (0.205)	-0.004 (0.204)	0.008 (0.197)
generation: Millennial (1995 and later birth year)	-0.132 (0.280)	-0.131 (0.280)	-0.127 (0.272)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & essential)	0.074 (0.115)	0.070 (0.114)	0.067 (0.109)
occupation: qualified & essential	-0.233* (0.116)	-0.232* (0.116)	-0.282* (0.110)
occupation: qualified & non-essential	-0.098 (0.111)	-0.101 (0.112)	-0.148 (0.107)
occupation: highly qualified & essential	-0.027 (0.133)	-0.029 (0.133)	-0.089 (0.128)
occupation: highly qualified & non-essential	-0.096 (0.131)	-0.096 (0.131)	-0.154 (0.124)
occupation: civil servants & essential	0.083 (0.172)	0.086 (0.175)	0.007 (0.165)
occupation: civil servants & non-essential	0.373+ (0.204)	0.386+ (0.204)	0.307 (0.213)
occupation: self-employed & essential	-0.013	0.000	-0.091

	(1)	(2)	(3)
	(0.402)	(0.405)	(0.390)
occupation: self-employed & non-essential	0.163	0.170	0.024
	(0.387)	(0.390)	(0.374)
occupation: careworkers	0.230+	0.239+	0.198
	(0.139)	(0.138)	(0.134)
occupation: no clear categorization & subjectively essential	-0.131	-0.130	-0.182
	(0.229)	(0.231)	(0.214)
occupation: no clear categorization & subjectively non-essential	-0.468*	-0.470*	-0.593**
	(0.194)	(0.195)	(0.187)
occupation: rest	-0.005	-0.009	-0.035
	(0.158)	(0.157)	(0.154)
education (medium level, ref: low level)	-0.065	-0.072	-0.107
	(0.122)	(0.121)	(0.117)
education (high level)	0.208	0.200	0.109
	(0.136)	(0.137)	(0.132)
limited contract (ref: unlimited contract)	0.111	0.101	0.076
	(0.118)	(0.120)	(0.119)
no information about contract status	0.031	0.018	0.097
	(0.366)	(0.369)	(0.354)
part-time job (ref: full-time job)	0.092	0.091	0.093
	(0.074)	(0.074)	(0.072)
„mini“/“midi“-job	0.305*	0.305*	0.298*
	(0.142)	(0.143)	(0.141)
furlough	0.094	0.082	0.067
	(0.113)	(0.116)	(0.112)
relative deprivation		-0.019	-0.006
		(0.032)	(0.030)
job worries factor		0.018	0.013
		(0.032)	(0.030)
absolute deprivation		-0.006	0.015
		(0.033)	(0.032)
institutional trust			0.255***
			(0.029)
Num.Obs.	1455	1455	1455
R2	0.109	0.109	0.165
R2 Adj.	0.089	0.088	0.144

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: nutrition factor as dependent variable**

	(1)	(2)	(3)
(Intercept)	0.027 (0.228)	0.053 (0.227)	0.095 (0.224)
class recognition	0.183*** (0.030)	0.152*** (0.033)	0.104** (0.035)
age	-0.165+ (0.088)	-0.181* (0.088)	-0.189* (0.088)
female	0.074 (0.065)	0.082 (0.065)	0.092 (0.064)
no migrational background (ref: migrational background)	-0.030 (0.091)	-0.040 (0.091)	-0.026 (0.090)
no disclosure of migrational background	0.535+ (0.282)	0.601* (0.278)	0.580* (0.291)
East German (ref: West German)	-0.206*** (0.061)	-0.193** (0.061)	-0.183** (0.060)
no disclosure of East/West German identity	-0.201 (0.184)	-0.205 (0.180)	-0.167 (0.175)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.150 (0.178)	0.122 (0.180)	0.095 (0.174)
generation Cold War (1965-1980)	-0.028 (0.117)	-0.043 (0.116)	-0.053 (0.114)
generation Gen Y (1981-1994)	-0.246 (0.215)	-0.278 (0.213)	-0.271 (0.211)
generation: Millenial (1995 and later birth year)	-0.533+ (0.294)	-0.584* (0.293)	-0.581* (0.291)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	0.069 (0.124)	0.075 (0.122)	0.073 (0.121)
occupation: qualified & essential	-0.137 (0.123)	-0.152 (0.123)	-0.186 (0.121)
occupation: qualified & non-essential	0.002 (0.118)	-0.002 (0.118)	-0.033 (0.117)
occupation: highly qualified & essential	0.136 (0.136)	0.112 (0.136)	0.073 (0.135)
occupation: highly qualified & non-essential	0.012 (0.135)	0.000 (0.135)	-0.038 (0.133)
occupation: civil servants & essential	0.204 (0.159)	0.156 (0.162)	0.104 (0.160)
occupation: civil servants & non-essential	0.262 (0.190)	0.255 (0.191)	0.203 (0.209)
occupation: self-employed & essential	-0.412	-0.370	-0.430

	(1)	(2)	(3)
	(0.368)	(0.379)	(0.373)
occupation: self-employed & non-essential	-0.229	-0.186	-0.282
	(0.352)	(0.365)	(0.360)
occupation: careworkers	0.068	0.068	0.041
	(0.143)	(0.141)	(0.141)
occupation: no clear categorization & subjectively essential	-0.100	-0.111	-0.146
	(0.245)	(0.246)	(0.228)
occupation: no clear categorization & subjectively non-essential	-0.196	-0.238	-0.318
	(0.225)	(0.226)	(0.217)
occupation: rest	0.022	0.027	0.010
	(0.179)	(0.179)	(0.173)
education (medium level, ref: low level)	0.006	0.006	-0.017
	(0.120)	(0.119)	(0.115)
education (high level)	0.179	0.152	0.092
	(0.133)	(0.133)	(0.130)
limited contract (ref: unlimited contract)	-0.052	-0.043	-0.059
	(0.108)	(0.110)	(0.106)
no information about contract status	0.568+	0.561	0.613+
	(0.330)	(0.344)	(0.338)
part-time job (ref: full-time job)	0.018	0.020	0.022
	(0.077)	(0.077)	(0.077)
„mini“/“midi“-job	0.334*	0.343*	0.338*
	(0.157)	(0.157)	(0.154)
furlough	0.062	0.112	0.102
	(0.115)	(0.113)	(0.112)
relative deprivation		-0.028	-0.020
		(0.033)	(0.032)
job worries factor		-0.024	-0.027
		(0.033)	(0.033)
absolute deprivation		-0.061+	-0.047
		(0.034)	(0.034)
institutional trust			0.167***
			(0.031)
Num.Obs.	1455	1455	1455
R2	0.091	0.097	0.120
R2 Adj.	0.071	0.075	0.098

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: speed limit as dependent variable**

	(1)	(2)	(3)
(Intercept)	-0.079 (0.236)	-0.091 (0.234)	-0.056 (0.231)
class recognition	0.116*** (0.030)	0.137*** (0.032)	0.097** (0.033)
age	0.175+ (0.091)	0.191* (0.091)	0.184* (0.090)
female	0.113+ (0.065)	0.111+ (0.064)	0.119+ (0.063)
no migrational background (ref: migrational background)	-0.059 (0.090)	-0.052 (0.090)	-0.041 (0.089)
no disclosure of migrational background	0.286 (0.664)	0.243 (0.654)	0.225 (0.678)
East German (ref: West German)	-0.064 (0.060)	-0.072 (0.060)	-0.063 (0.060)
no disclosure of East/West German identity	-0.035 (0.181)	-0.034 (0.178)	-0.002 (0.173)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	-0.205 (0.238)	-0.177 (0.236)	-0.199 (0.245)
generation Cold War (1965-1980)	0.299* (0.121)	0.310* (0.122)	0.302* (0.121)
generation Gen Y (1981-1994)	0.182 (0.216)	0.211 (0.216)	0.217 (0.213)
generation: Millennial (1995 and later birth year)	0.026 (0.293)	0.075 (0.293)	0.078 (0.291)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	0.217 (0.133)	0.208 (0.134)	0.207 (0.133)
occupation: qualified & essential	-0.157 (0.130)	-0.143 (0.130)	-0.170 (0.128)
occupation: qualified & non-essential	-0.088 (0.124)	-0.087 (0.125)	-0.113 (0.122)
occupation: highly qualified & essential	-0.057 (0.142)	-0.040 (0.143)	-0.073 (0.142)
occupation: highly qualified & non-essential	-0.141 (0.140)	-0.131 (0.140)	-0.162 (0.139)
occupation: civil servants & essential	0.031 (0.171)	0.073 (0.173)	0.030 (0.169)
occupation: civil servants & non-essential	0.315 (0.303)	0.334 (0.302)	0.290 (0.291)
occupation: self-employed & essential	0.580+ (0.580)	0.557+ (0.557)	0.507 (0.507)

	(1)	(2)	(3)
	(0.339)	(0.339)	(0.335)
occupation: self-employed & non-essential	0.590+	0.559+	0.479
	(0.320)	(0.318)	(0.314)
occupation: careworkers	0.287+	0.297+	0.274+
	(0.155)	(0.155)	(0.156)
occupation: no clear categorization & subjectively essential	-0.219	-0.212	-0.241
	(0.236)	(0.237)	(0.229)
occupation: no clear categorization & subjectively non-essential	-0.408+	-0.373+	-0.441*
	(0.220)	(0.219)	(0.200)
occupation: rest	-0.025	-0.035	-0.050
	(0.156)	(0.157)	(0.162)
education (medium level, ref: low level)	-0.161	-0.171	-0.190
	(0.154)	(0.150)	(0.150)
education (high level)	-0.074	-0.059	-0.108
	(0.163)	(0.161)	(0.161)
limited contract (ref: unlimited contract)	0.164	0.145	0.131
	(0.117)	(0.117)	(0.117)
no information about contract status	-0.565+	-0.570*	-0.527+
	(0.291)	(0.289)	(0.285)
part-time job (ref: full-time job)	0.298***	0.294***	0.295***
	(0.084)	(0.084)	(0.083)
„mini“/„midi“-job	0.459**	0.449**	0.445**
	(0.142)	(0.142)	(0.145)
furlough	0.046	-0.010	-0.018
	(0.127)	(0.132)	(0.131)
relative deprivation		-0.002	0.004
		(0.032)	(0.031)
job worries factor		0.033	0.030
		(0.033)	(0.032)
absolute deprivation		0.054	0.065+
		(0.035)	(0.035)
institutional trust			0.140***
			(0.032)
Num.Obs.	1455	1455	1455
R2	0.107	0.111	0.127
R2 Adj.	0.088	0.090	0.106

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: carbon tax on fossil fuels as dependent variable**

	(1)	(2)	(3)
(Intercept)	0.048 (0.229)	0.059 (0.230)	0.113 (0.221)
class recognition	0.175*** (0.030)	0.168*** (0.034)	0.107** (0.035)
age	-0.005 (0.085)	-0.009 (0.084)	-0.019 (0.082)
female	-0.158** (0.061)	-0.154* (0.062)	-0.141* (0.060)
no migrational background (ref: migrational background)	-0.003 (0.089)	-0.005 (0.089)	0.013 (0.084)
no disclosure of migrational background	-0.392 (0.280)	-0.391 (0.277)	-0.419 (0.265)
East German (ref: West German)	-0.098+ (0.056)	-0.094+ (0.056)	-0.081 (0.055)
no disclosure of East/West German identity	0.170 (0.191)	0.168 (0.190)	0.217 (0.176)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.060 (0.209)	0.058 (0.210)	0.024 (0.206)
generation Cold War (1965-1980)	0.010 (0.110)	0.003 (0.111)	-0.010 (0.108)
generation Gen Y (1981-1994)	-0.029 (0.199)	-0.040 (0.199)	-0.031 (0.194)
generation: Millennial (1995 and later birth year)	-0.055 (0.273)	-0.070 (0.273)	-0.066 (0.268)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	-0.042 (0.109)	-0.044 (0.109)	-0.047 (0.104)
occupation: qualified & essential	-0.140 (0.113)	-0.143 (0.113)	-0.186+ (0.108)
occupation: qualified & non-essential	-0.073 (0.109)	-0.076 (0.109)	-0.116 (0.106)
occupation: highly qualified & essential	-0.020 (0.131)	-0.026 (0.131)	-0.076 (0.127)
occupation: highly qualified & non-essential	-0.050 (0.126)	-0.053 (0.127)	-0.101 (0.121)
occupation: civil servants & essential	0.040 (0.170)	0.036 (0.172)	-0.030 (0.164)
occupation: civil servants & non-essential	0.531* (0.244)	0.543* (0.244)	0.476+ (0.250)
occupation: self-employed & essential	-0.073	-0.054	-0.130

	(1)	(2)	(3)
	(0.401)	(0.407)	(0.391)
occupation: self-employed & non-essential	0.086	0.102	-0.021
	(0.386)	(0.392)	(0.377)
occupation: careworkers	0.291*	0.299*	0.265+
	(0.143)	(0.142)	(0.139)
occupation: no clear categorization & subjectively essential	0.011	0.015	-0.029
	(0.217)	(0.218)	(0.193)
occupation: no clear categorization & subjectively non-essential	-0.357*	-0.368*	-0.471**
	(0.157)	(0.160)	(0.154)
occupation: rest	-0.102	-0.101	-0.124
	(0.151)	(0.150)	(0.145)
education (medium level, ref: low level)	-0.099	-0.102	-0.131
	(0.123)	(0.122)	(0.117)
education (high level)	0.253+	0.241+	0.165
	(0.140)	(0.140)	(0.135)
limited contract (ref: unlimited contract)	0.141	0.136	0.115
	(0.123)	(0.124)	(0.125)
no information about contract status	0.193	0.180	0.246
	(0.365)	(0.371)	(0.355)
part-time job (ref: full-time job)	0.058	0.058	0.060
	(0.076)	(0.075)	(0.074)
„mini“/“midi“-job	0.076	0.081	0.075
	(0.145)	(0.146)	(0.144)
furlough	0.070	0.069	0.057
	(0.115)	(0.119)	(0.117)
relative deprivation		-0.011	-0.001
		(0.032)	(0.031)
job worries factor		0.018	0.014
		(0.032)	(0.031)
absolute deprivation		-0.028	-0.010
		(0.035)	(0.034)
institutional trust			0.215***
			(0.029)
Num.Obs.	1455	1455	1455
R2	0.108	0.109	0.148
R2 Adj.	0.089	0.088	0.127

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

***Weighted models: enhancement of emission areas as dependent variable***

	(1)	(2)	(3)
(Intercept)	0.016 (0.232)	0.017 (0.232)	0.082 (0.226)
class recognition	0.146*** (0.032)	0.153*** (0.035)	0.079* (0.036)
age	0.078 (0.094)	0.087 (0.094)	0.074 (0.091)
female	0.106 (0.067)	0.109 (0.067)	0.124+ (0.066)
no migrational background (ref: migrational background)	-0.165+ (0.092)	-0.162+ (0.093)	-0.141 (0.095)
no disclosure of migrational background	0.722** (0.233)	0.707** (0.232)	0.674** (0.251)
East German (ref: West German)	-0.067 (0.065)	-0.068 (0.065)	-0.053 (0.062)
no disclosure of East/West German identity	-0.051 (0.165)	-0.052 (0.164)	0.007 (0.160)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.204 (0.233)	0.220 (0.233)	0.179 (0.238)
generation Cold War (1965-1980)	0.078 (0.122)	0.082 (0.122)	0.066 (0.117)
generation Gen Y (1981-1994)	0.097 (0.225)	0.111 (0.224)	0.123 (0.217)
generation: Millenial (1995 and later birth year)	0.080 (0.311)	0.107 (0.309)	0.111 (0.301)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	0.074 (0.130)	0.066 (0.130)	0.063 (0.124)
occupation: qualified & essential	-0.281* (0.130)	-0.273* (0.130)	-0.325** (0.124)
occupation: qualified & non-essential	-0.137 (0.123)	-0.139 (0.123)	-0.187 (0.117)
occupation: highly qualified & essential	-0.121 (0.143)	-0.115 (0.143)	-0.176 (0.137)
occupation: highly qualified & non-essential	-0.123 (0.144)	-0.118 (0.144)	-0.176 (0.137)
occupation: civil servants & essential	0.018 (0.181)	0.040 (0.182)	-0.040 (0.173)
occupation: civil servants & non-essential	0.019 (0.248)	0.039 (0.249)	-0.042 (0.264)
occupation: self-employed & essential	-0.065	-0.065	-0.158

	(1)	(2)	(3)
	(0.381)	(0.378)	(0.366)
occupation: self-employed & non-essential	0.121	0.111	-0.037
	(0.366)	(0.363)	(0.351)
occupation: careworkers	0.059	0.071	0.029
	(0.150)	(0.150)	(0.143)
occupation: no clear categorization & subjectively essential	-0.139	-0.136	-0.190
	(0.280)	(0.285)	(0.302)
occupation: no clear categorization & subjectively non-essential	-0.476	-0.460	-0.585+
	(0.326)	(0.325)	(0.340)
occupation: rest	0.113	0.105	0.078
	(0.173)	(0.174)	(0.171)
education (medium level, ref: low level)	0.065	0.053	0.018
	(0.149)	(0.150)	(0.149)
education (high level)	0.242	0.243	0.151
	(0.160)	(0.161)	(0.160)
limited contract (ref: unlimited contract)	0.081	0.064	0.038
	(0.130)	(0.131)	(0.131)
no information about contract status	-0.174	-0.186	-0.106
	(0.343)	(0.339)	(0.328)
part-time job (ref: full-time job)	-0.040	-0.043	-0.041
	(0.084)	(0.084)	(0.082)
„mini“/„midi“-job	0.221	0.215	0.207
	(0.157)	(0.157)	(0.152)
furlough	0.102	0.064	0.049
	(0.129)	(0.133)	(0.129)
relative deprivation		-0.019	-0.007
		(0.035)	(0.033)
job worries factor		0.028	0.023
		(0.035)	(0.034)
absolute deprivation		0.024	0.046
		(0.036)	(0.035)
institutional trust			0.259***
			(0.032)
Num.Obs.	1455	1455	1455
R2	0.061	0.062	0.116
R2 Adj.	0.041	0.040	0.094

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: price plastic packaging as dependent variable**

	(1)	(2)	(3)
(Intercept)	0.337 (0.242)	0.350 (0.243)	0.374 (0.243)
class recognition	0.120*** (0.033)	0.094** (0.035)	0.066+ (0.037)
age	-0.126 (0.096)	-0.142 (0.096)	-0.146 (0.096)
female	0.065 (0.068)	0.067 (0.068)	0.073 (0.067)
no migrational background (ref: migrational background)	-0.030 (0.093)	-0.039 (0.093)	-0.031 (0.094)
no disclosure of migrational background	-0.114 (0.409)	-0.044 (0.401)	-0.056 (0.409)
East German (ref: West German)	-0.147* (0.064)	-0.138* (0.063)	-0.132* (0.063)
no disclosure of East/West German identity	-0.210 (0.195)	-0.211 (0.193)	-0.189 (0.192)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.109 (0.190)	0.077 (0.195)	0.062 (0.193)
generation Cold War (1965-1980)	-0.053 (0.125)	-0.062 (0.124)	-0.068 (0.124)
generation Gen Y (1981-1994)	-0.283 (0.231)	-0.309 (0.231)	-0.305 (0.230)
generation: Millennial (1995 and later birth year)	-0.510 (0.323)	-0.555+ (0.323)	-0.554+ (0.322)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	-0.079 (0.134)	-0.068 (0.132)	-0.069 (0.133)
occupation: qualified & essential	-0.251+ (0.143)	-0.266+ (0.142)	-0.285* (0.141)
occupation: qualified & non-essential	-0.002 (0.131)	-0.001 (0.130)	-0.019 (0.130)
occupation: highly qualified & essential	0.138 (0.140)	0.119 (0.140)	0.097 (0.140)
occupation: highly qualified & non-essential	-0.063 (0.145)	-0.075 (0.145)	-0.097 (0.144)
occupation: civil servants & essential	0.130 (0.169)	0.078 (0.171)	0.048 (0.172)
occupation: civil servants & non-essential	-0.125 (0.239)	-0.151 (0.242)	-0.181 (0.250)

	(1)	(2)	(3)
occupation: self-employed & essential	-0.251 (0.343)	-0.229 (0.348)	-0.264 (0.350)
occupation: self-employed & non-essential	-0.243 (0.329)	-0.213 (0.335)	-0.269 (0.338)
occupation: careworkers	-0.102 (0.158)	-0.116 (0.158)	-0.131 (0.159)
occupation: no clear categorization & subjectively essential	-0.371 (0.258)	-0.386 (0.255)	-0.407 (0.248)
occupation: no clear categorization & subjectively non-essential	-0.307 (0.266)	-0.343 (0.262)	-0.390 (0.267)
occupation: rest	0.093 (0.183)	0.101 (0.183)	0.091 (0.180)
education (medium level, ref: low level)	-0.161 (0.136)	-0.154 (0.135)	-0.167 (0.134)
education (high level)	-0.156 (0.149)	-0.171 (0.150)	-0.206 (0.149)
limited contract (ref: unlimited contract)	-0.181 (0.112)	-0.160 (0.116)	-0.170 (0.114)
no information about contract status	0.376 (0.302)	0.387 (0.309)	0.417 (0.312)
part-time job (ref: full-time job)	0.054 (0.082)	0.057 (0.082)	0.058 (0.082)
„mini“/„midi“-job	0.217 (0.167)	0.223 (0.167)	0.220 (0.166)
furlough	0.142 (0.130)	0.207 (0.129)	0.202 (0.128)
relative deprivation		-0.010 (0.034)	-0.005 (0.034)
job worries factor		-0.053 (0.037)	-0.055 (0.037)
absolute deprivation		-0.041 (0.038)	-0.033 (0.038)
institutional trust			0.097** (0.034)
Num.Obs.	1455	1455	1455
R2	0.049	0.054	0.062
R2 Adj.	0.028	0.031	0.039

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: meat tax as dependent variable**

	(1)	(2)	(3)
(Intercept)	-0.110 (0.236)	-0.088 (0.234)	-0.058 (0.233)
class recognition	0.131*** (0.031)	0.100** (0.034)	0.066+ (0.035)
age	-0.233* (0.092)	-0.249** (0.092)	-0.255** (0.092)
female	0.193** (0.067)	0.199** (0.067)	0.207** (0.066)
no migrational background (ref: migrational background)	-0.058 (0.093)	-0.069 (0.093)	-0.059 (0.092)
no disclosure of migrational background	0.760** (0.234)	0.837*** (0.233)	0.822*** (0.238)
East German (ref: West German)	-0.188** (0.062)	-0.175** (0.062)	-0.168** (0.061)
no disclosure of East/West German identity	-0.200 (0.196)	-0.204 (0.192)	-0.177 (0.191)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	0.182 (0.243)	0.154 (0.244)	0.135 (0.238)
generation Cold War (1965-1980)	-0.044 (0.118)	-0.055 (0.118)	-0.063 (0.117)
generation Gen Y (1981-1994)	-0.303 (0.222)	-0.332 (0.221)	-0.326 (0.220)
generation: Millennial (1995 and later birth year)	-0.601* (0.300)	-0.647* (0.300)	-0.645* (0.300)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	0.154 (0.131)	0.162 (0.130)	0.161 (0.129)
occupation: qualified & essential	-0.034 (0.127)	-0.048 (0.126)	-0.072 (0.125)
occupation: qualified & non-essential	0.022 (0.119)	0.020 (0.119)	-0.002 (0.119)
occupation: highly qualified & essential	0.151 (0.141)	0.129 (0.141)	0.101 (0.140)
occupation: highly qualified & non-essential	0.125 (0.135)	0.113 (0.135)	0.087 (0.135)
occupation: civil servants & essential	0.241 (0.163)	0.190 (0.165)	0.153 (0.164)
occupation: civil servants & non-essential	0.271 (0.166)	0.257 (0.171)	0.220 (0.180)
occupation: self-employed & essential	-0.419	-0.383	-0.425

	(1)	(2)	(3)
	(0.352)	(0.359)	(0.353)
occupation: self-employed & non-essential	-0.217	-0.178	-0.246
	(0.338)	(0.346)	(0.341)
occupation: careworkers	-0.013	-0.018	-0.037
	(0.144)	(0.144)	(0.143)
occupation: no clear categorization & subjectively essential	-0.031	-0.046	-0.071
	(0.248)	(0.247)	(0.228)
occupation: no clear categorization & subjectively non-essential	0.086	0.046	-0.011
	(0.293)	(0.294)	(0.282)
occupation: rest	0.033	0.037	0.025
	(0.186)	(0.187)	(0.183)
education (medium level, ref: low level)	0.118	0.118	0.102
	(0.142)	(0.141)	(0.139)
education (high level)	0.238	0.214	0.172
	(0.153)	(0.153)	(0.151)
limited contract (ref: unlimited contract)	-0.049	-0.038	-0.050
	(0.103)	(0.105)	(0.102)
no information about contract status	0.562+	0.561+	0.597+
	(0.314)	(0.323)	(0.318)
part-time job (ref: full-time job)	-0.001	0.001	0.002
	(0.079)	(0.079)	(0.079)
„mini“/„midi“-job	0.412*	0.418**	0.415**
	(0.164)	(0.162)	(0.161)
furlough	0.010	0.064	0.057
	(0.133)	(0.134)	(0.134)
relative deprivation		-0.030	-0.024
		(0.034)	(0.033)
job worries factor		-0.037	-0.040
		(0.033)	(0.033)
absolute deprivation		-0.048	-0.039
		(0.035)	(0.035)
institutional trust			0.118***
			(0.033)
Num.Obs.	1455	1455	1455
R2	0.074	0.079	0.091
R2 Adj.	0.053	0.057	0.068

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**Weighted models: cutting subsidies of conventional agriculture as dependent variable**

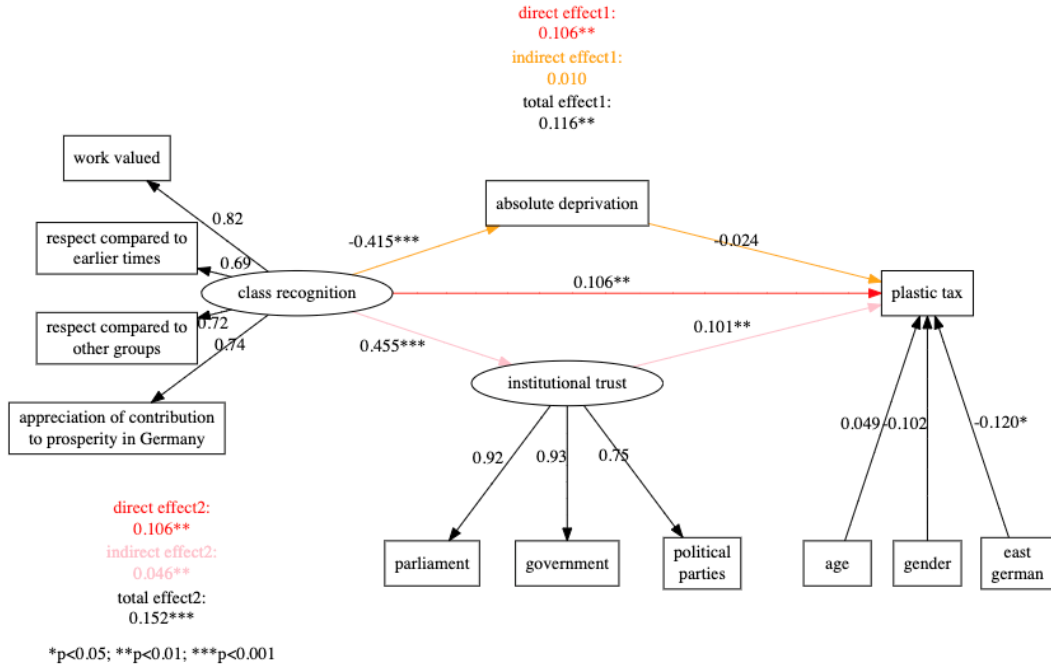
	(1)	(2)	(3)
(Intercept)	-0.061 (0.241)	-0.026 (0.239)	-0.008 (0.238)
class recognition	0.150*** (0.031)	0.122*** (0.033)	0.102** (0.035)
age	-0.056 (0.092)	-0.073 (0.091)	-0.076 (0.091)
female	-0.168* (0.067)	-0.156* (0.067)	-0.152* (0.067)
no migrational background (ref: migrational background)	0.119 (0.091)	0.110 (0.091)	0.115 (0.090)
no disclosure of migrational background	0.616** (0.202)	0.645** (0.209)	0.636** (0.216)
East German (ref: West German)	-0.172** (0.061)	-0.158** (0.061)	-0.154* (0.061)
no disclosure of East/West German identity	-0.229 (0.157)	-0.235 (0.152)	-0.219 (0.149)
generation Post WW2 (1954 before, ref: Baby Boomer, 1955-1964)	-0.007 (0.163)	-0.029 (0.160)	-0.039 (0.161)
generation Cold War (1965-1980)	-0.029 (0.122)	-0.053 (0.121)	-0.058 (0.121)
generation Gen Y (1981-1994)	-0.041 (0.227)	-0.084 (0.224)	-0.081 (0.224)
generation: Millenial (1995 and later birth year)	-0.257 (0.306)	-0.321 (0.304)	-0.320 (0.304)
occupation: non-qualified & non-essential (ref: "baseworker", non-qualified & non-essential)	0.000 (0.128)	-0.001 (0.127)	-0.001 (0.127)
occupation: qualified & essential	0.012 (0.134)	-0.005 (0.133)	-0.019 (0.133)
occupation: qualified & non-essential	0.070 (0.129)	0.060 (0.129)	0.048 (0.128)
occupation: highly qualified & essential	0.126 (0.143)	0.102 (0.143)	0.086 (0.143)
occupation: highly qualified & non-essential	-0.070 (0.146)	-0.082 (0.146)	-0.098 (0.145)
occupation: civil servants & essential	0.116 (0.176)	0.082 (0.176)	0.061 (0.177)
occupation: civil servants & non-essential	0.246 (0.282)	0.263 (0.272)	0.242 (0.279)
occupation: self-employed & essential	-0.494+ (0.282)	-0.434 (0.272)	-0.459 (0.279)

	(1)	(2)	(3)
	(0.287)	(0.298)	(0.298)
occupation: self-employed & non-essential	-0.365	-0.309	-0.349
	(0.271)	(0.283)	(0.283)
occupation: careworkers	0.201	0.216	0.205
	(0.148)	(0.147)	(0.147)
occupation: no clear categorization & subjectively essential	0.168	0.172	0.158
	(0.227)	(0.227)	(0.230)
occupation: no clear categorization & subjectively non-essential	-0.211	-0.257	-0.290
	(0.216)	(0.224)	(0.224)
occupation: rest	-0.068	-0.061	-0.068
	(0.179)	(0.178)	(0.175)
education (medium level, ref: low level)	0.005	0.004	-0.005
	(0.137)	(0.135)	(0.134)
education (high level)	0.154	0.118	0.093
	(0.148)	(0.147)	(0.146)
limited contract (ref: unlimited contract)	-0.033	-0.033	-0.040
	(0.125)	(0.125)	(0.124)
no information about contract status	0.686**	0.657**	0.678**
	(0.239)	(0.252)	(0.253)
part-time job (ref: full-time job)	-0.051	-0.048	-0.047
	(0.082)	(0.081)	(0.081)
„mini“/“midi“-job	0.010	0.027	0.025
	(0.143)	(0.146)	(0.143)
furlough	-0.018	0.011	0.007
	(0.103)	(0.105)	(0.106)
relative deprivation		-0.026	-0.023
		(0.035)	(0.035)
job worries factor		0.023	0.022
		(0.033)	(0.033)
absolute deprivation		-0.097**	-0.091*
		(0.036)	(0.036)
institutional trust			0.069*
			(0.032)
Num.Obs.	1455	1455	1455
R2	0.069	0.077	0.081
R2 Adj.	0.048	0.055	0.058

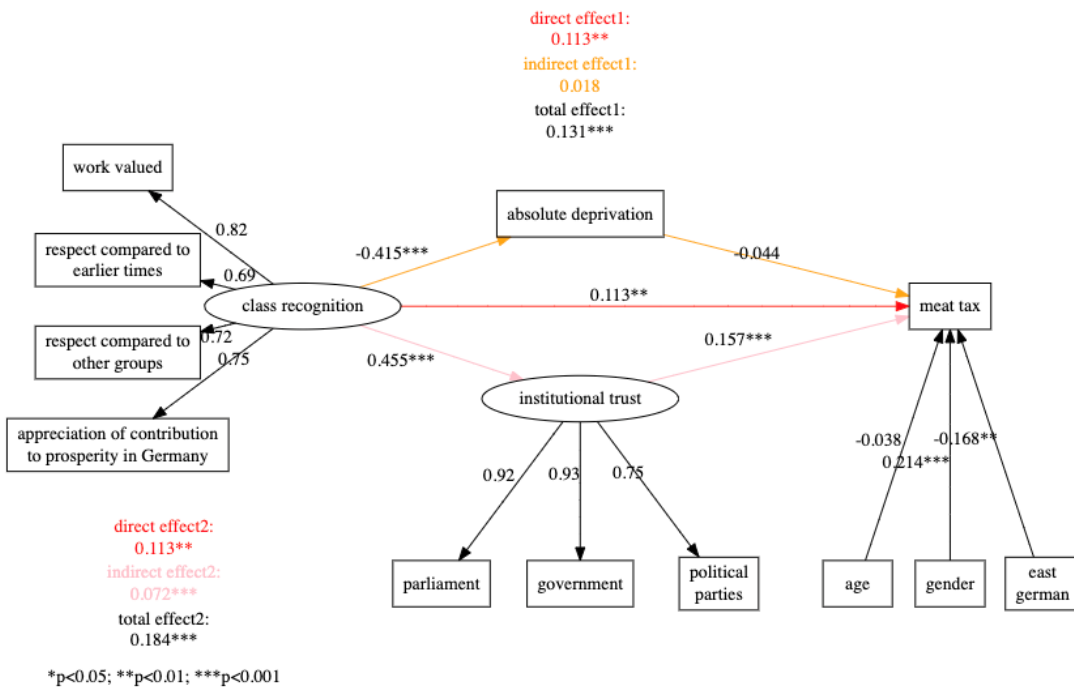
+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

# A6 SEMs

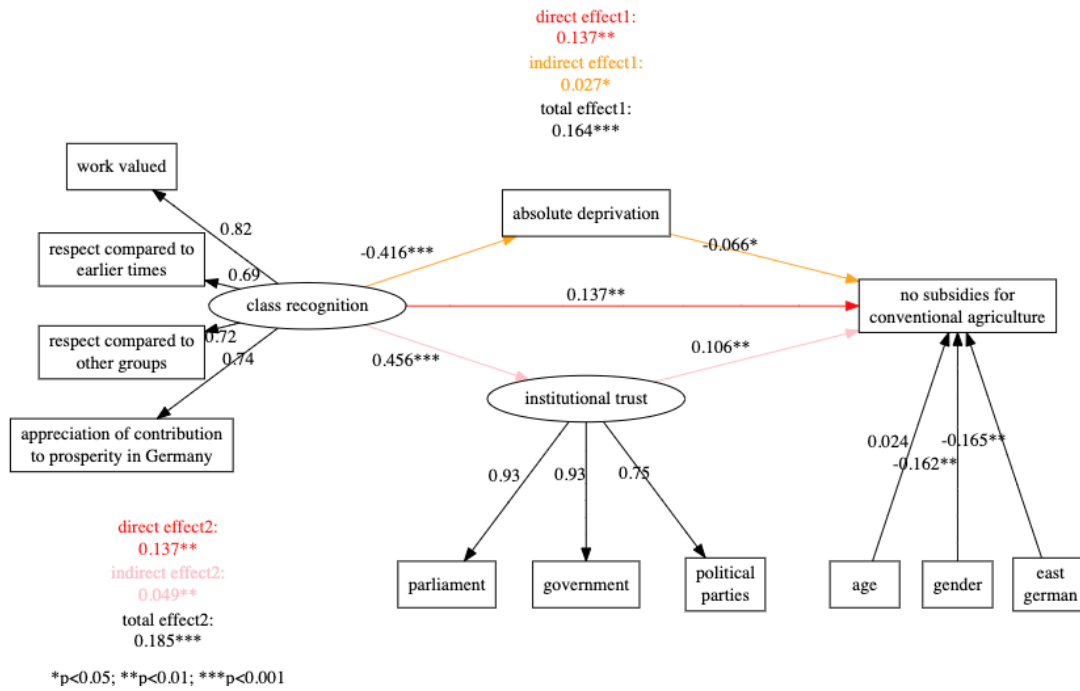
CFI = 0.966  
 TLI = 0.955  
 RMSEA = 0.053



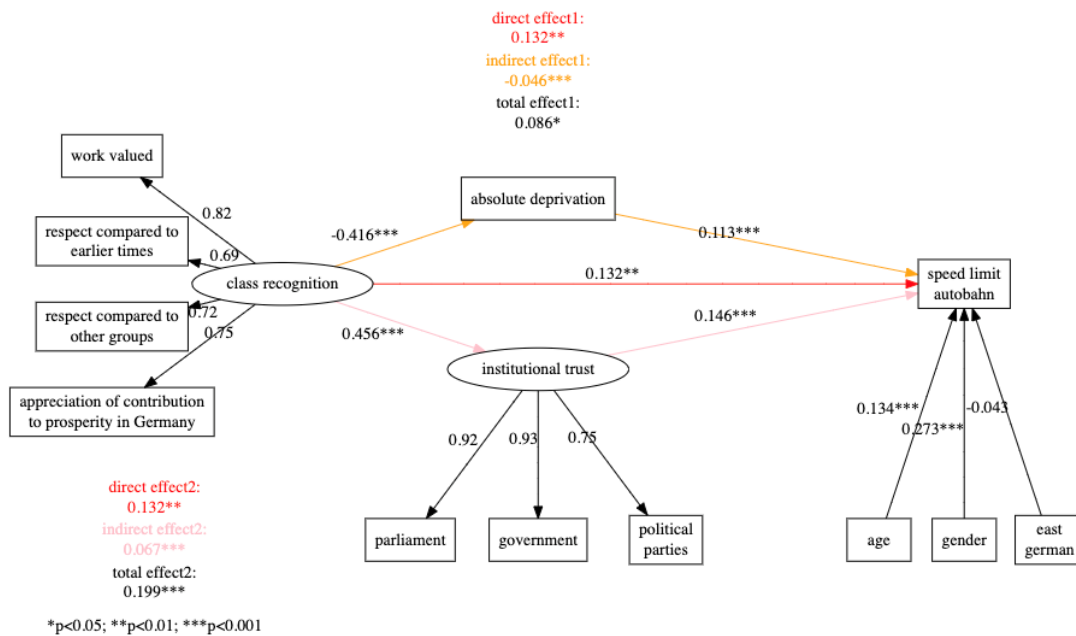
CFI = 0.966  
 TLI = 0.955  
 RMSEA = 0.053



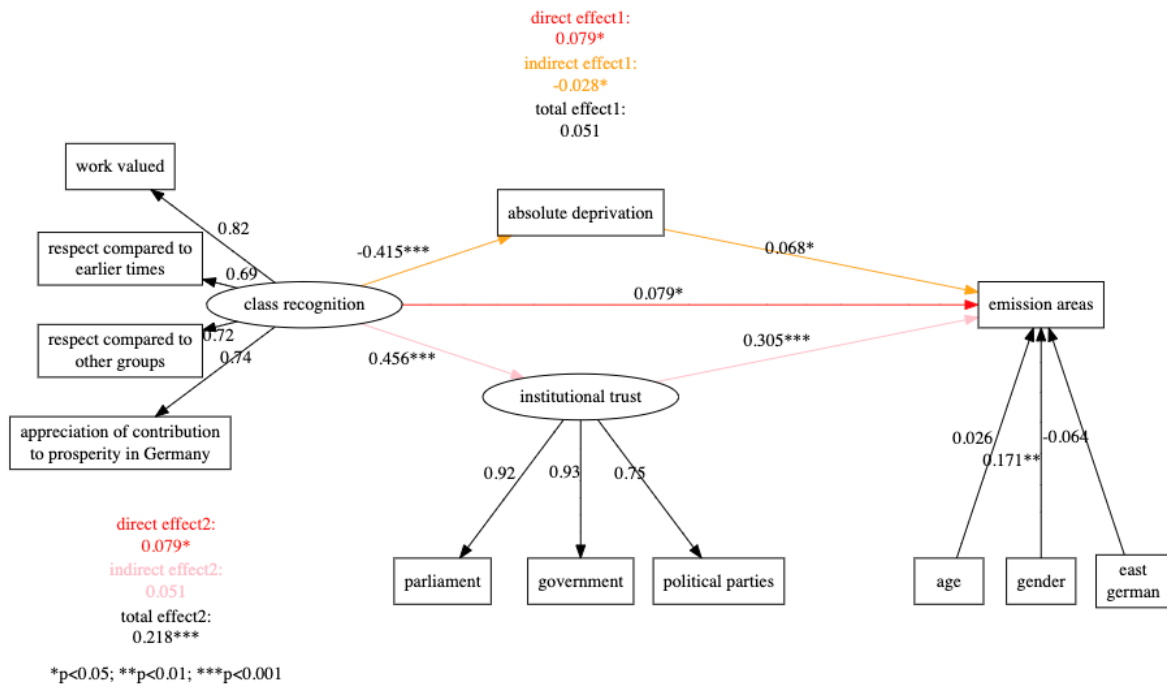
CFI = 0.964  
 TLI = 0.953  
 RMSEA = 0.055



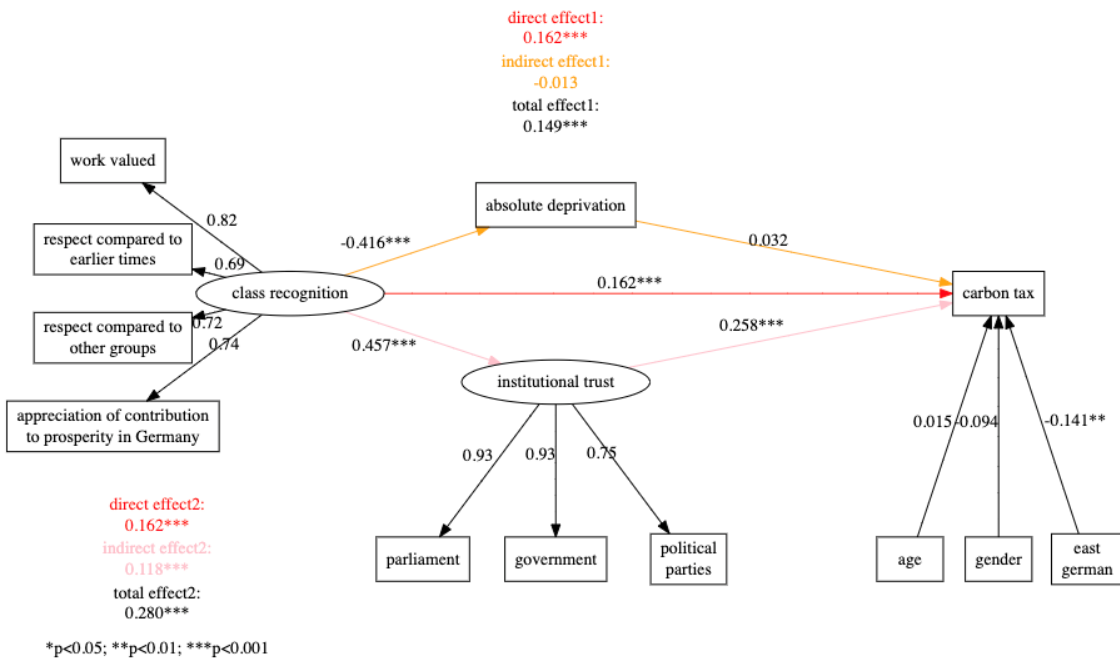
CFI = 0.964  
 TLI = 0.952  
 RMSEA = 0.055



CFI = 0.966  
 TLI = 0.955  
 RMSEA = 0.054



CFI = 0.964  
 TLI = 0.953  
 RMSEA = 0.055



## 5 Conclusion

Modern societies and liberal democracies are increasingly confronted with crises of a global scale with life-altering consequences for citizens. Examples of this are the COVID-19 pandemic with its health, social, and economic consequences, the rise of populism in recent decades, and climate change, which threatens human existence. Thus, individuals and states must find ways to be resilient in the face of crises as global solutions are hard to come by.

In light of these circumstances, I have introduced the recognition of social identities as a new mechanism for promoting the resilience of individuals, liberal democracies, and societies in this dissertation. My contribution is therefore less to look at each crisis separately and propose specific solutions, but rather to show that the recognition of social identities is a general mechanism that can help in crisis management in different contexts. This dissertation enhances the literature on several topics: 1) measures/effects of recognition of social identities, 2) resilience of individuals, liberal democracies, and societies, and 3) political attitudes (e.g., populist attitudes, approval of climate change mitigation policies).

Within the *theoretical* framework, I link Social Identity Theory (Tajfel & Turner, 1979, 1986) with concepts of recognition (Fukuyama, 2019; Honneth, 1992; Taylor, 2020) for the first time and thus attempt to build a bridge from the macro-sociological societal level via the meso-level of social groups to the micro-sociological individual level. With this theoretical framework, I provide a tool for translating abstract phenomena of social change into empirically testable hypotheses. Furthermore, I explain four conceivable transmission pathways through which recognition has additional indirect reinforcing effects on already known influencing factors of resilience: 1) weakening perceived threats; 2) enhancing self-esteem and self-efficacy; 3) signaling benevolence and trustworthiness; 4) activating collective responsibility and solidarity norms.

This dissertation has added three new insights to existing research on social identities, recognition, and resilience at the theoretical level.

First, I explore the fundamental question of why social identities are important to people. Social identities are usually described based on Tajfel's and Turner's Social Identity Theory (1979, 1986) or Mead's (2020) elaborations on forming identities. SIT postulates the human need for a positive self-image, which is fed by a positive social identity (evaluative function). Furthermore, social identities provide orientation and guidance as they assign the individual a social position (cognitive function). Against the backdrop of social change, new social categories can emerge, and the evaluations of existing social categories can change, as a result of which

individuals can experience both the devaluation of a positive social identity, and the difficulty of classifying themselves into a social category.

The second question is how a social identity can be positive. While SIT stipulates that a comparison with a relevant out-group is essential, the comparison criterion remains vague. At this point, as the second theoretical innovation of this dissertation, I link the idea of social group comparison with the concept of recognition and argue that recognition is an important resource for which social groups compete. In doing so, I refer in particular to Fukuyama (2019), who, with the introduction of the terms “isothymia” (2019, p. 39, need for recognition as equal) and “megalothymia” (2019, p. 40, need for recognition as superior), establishes a helpful concept for illustrating struggles for recognition.

My third theoretical contribution consists of placing the theoretical link between recognition and social identities in the specific temporal context of this dissertation and making it manageable for empirical application using the classic Coleman (1990) scheme. Within the theoretical framework, I explain how change (in economic, cultural, and social terms) breaks down existing recognition hierarchies and challenges social categories. This makes it more difficult for individuals to gain/hold on to a positive self-image and/or classify themselves, enforcing the struggle for recognition between groups and individuals of these groups. The uncertainty in the face of possible devaluation can result in existential fears, which influence people's attitudes and, in turn, aggregate at the macro-level. This would lead to diminished individual, political, and social resilience.

Moreover, this dissertation has innovative *methodological* potential in that it is the first to quantify the recognition of social class identities and occupational groups. To my knowledge, no established measurement instruments for the recognition of occupational groups or social classes are currently available. I propose newly developed items to close this research gap. The data evaluation suggests that these proposed items have sufficient internal validity and can serve as a starting point for systematic scale development.

Lastly, the results of this dissertation provide *empirical indications* that the recognition of social identities is indeed linked to resilience in the context of three different crises. The empirical part of this dissertation is divided into three peer-reviewed papers. The overarching theoretical bracket of all these papers is the assumption that the recognition of social identities should have a positive effect on resilience to political and social crises. Each paper deals with a different example of a crisis and a different operationalization of resilience. I will summarize these results in the following subchapter.

### 5.1.1 Occupational recognition and compliance with infection control measures

The first paper focuses on the COVID-19 pandemic, which was acute and therefore of particular interest at the time of the data collection on which the analyses are based. Given the lack of medically effective preventive vaccination, compliance with measures to contain the spread of infection was the most important tool for managing the pandemic. Societies had to balance between interrupting chains of infection and maintaining public life and infrastructure. The infection control measures were accompanied by considerable restrictions and hardship at the individual level, with the situation of social groups varying considerably. In particular, the occupational group was a decisive criterion for the unequal social distribution of health, social, and economic risks. On the one hand, people in the healthcare system (doctors, nurses, care workers) were exposed to significantly higher health risks and had to work overtime (Beale et al., 2023; Green & Semple, 2023; Reuter et al., 2022).

On the other hand, entire sectors were temporarily unable to carry out their profession, which meant that many employees lost their jobs or suffered a significant drop in income (Holst et al., 2021; Kritikos et al., 2020). In order to limit the economic damage for as many occupational groups as possible and at the same time protect particularly vulnerable groups, a high degree of discipline was required when implementing health policy measures. In this respect, the society's resilience had to be ensured insofar as the mitigation measures had to meet with the broadest possible acceptance rates among the population to increase the likelihood of compliance with these measures. At this point, the paper examines the idea that occupational recognition could increase the acceptance of infection control measures.

In my analyses, I distinguish between two spheres of recognition. On the one hand, I look at the recognition of the occupational group as such; on the other hand, I also examine the individual and specific recognition that respondents receive in the context of their own job in their immediate working environment – labeled as job recognition. I would like to highlight two overarching results here.

Firstly, occupational recognition and job recognition have a positive correlation with various forms of compliance with infection prevention measures and thus strengthen societal resilience in times of crisis.

Secondly, I can differentiate between micro-sociological and macro-sociological recognition effects. At the micro level, the recognition that respondents receive in their immediate working environment impacts the extent to which respondents adhere to directly effective infection control measures in the workplace. Therefore, I conclude a direct reciprocity effect here: those who receive recognition from their colleagues, customers, and patients for their performance and commitment are significantly more willing to adhere to the infection control measures that are

effective in the workplace and thus protect these same people. This effect is stronger than the effect of the recognition that respondents receive for belonging to and performing in their occupational group on the compliance with this form of infection prevention measures. However, when it comes to increasing the acceptance of politically imposed measures such as school closures and a general willingness to be vaccinated, recognition for the occupational group proves to be the most relevant predictor. More specifically, the recognition that occupational groups received during the pandemic through specific policies is significantly positively associated with the extent to which respondents also adhere to politically prescribed infection control measures.

This paper thus provides empirical evidence that the recognition of social identities strengthens the resilience of societies. Furthermore, I interpret the results of this paper to mean that the recognition of social identities is a suitable mechanism for transforming a diffusion and aggregation of this individual increase in resilience into an increase in overall societal resilience through targeted interventions at the individual level.

#### 5.1.2 Threats to social identities and populist attitudes

The second paper deals with the political crisis of liberal democracies in the form of populist attitudes. Populist attitudes threaten the resilience of liberal democracies insofar as they construct an antagonistic formation and implementation of will by a small but powerful elite as opposed to the majority of ordinary people (Mudde, 2004). This sketch of a supposed power struggle and a betrayal of the common people by the political elite erodes trust in institutions, which reduces the effectiveness of these institutions for control and coordination.

There are already several theories on the extent to which economic and cultural factors can explain the rise in populist tendencies over the past decades. The losers of modernization thesis (LOM), which is widely utilized, postulates that the economically disadvantaged identify a further threat to their already precarious situation in increasing globalization processes and, hence, turn to populist parties that present themselves as upholders of traditions and long-established hierarchies (Betz, 1994; Gidron & Hall, 2017; Rydgren, 2007; Spier, 2010). The Cultural Backlash Thesis (CBT), on the other hand, uses the basic idea that, in response to increasing liberalization and changing values in the second half of the 20th century, a backlash has formed that also wants to preserve or reintroduce traditional and hierarchical social structures - for reasons of a lack of identification with once widespread values and a nostalgic desire to restore them (Norris & Inglehart, 2019). However, both explanations can only partially explain the rise of populist values and attitudes (Burgoon et al., 2019; Hartmann et al., 2022; Kurer, 2020; Schäfer,

2022). Both theoretically and empirically, these two explanatory approaches have shown gaps. Following this literature, I have proposed the thesis of threatened social identities as a bridge to cross this chasm (Fukuyama, 2019; Honneth, 1992; Tajfel & Turner, 1986; Taylor, 2020). Once again, the idea is that a sufficient degree of recognition of social identities should lead to people being able to come to terms with the modernization processes despite a possibly risky economic situation and a cultural lack of integration into new value systems to such an extent that they do not feel the need to break out of liberal democracy. Those who feel recognized feel secure enough to accept possible diversification and change processes. This makes society and liberal democracy more resilient. Conversely, people who do not feel that their social identities are sufficiently recognized or have issues self-identifying will view economic and cultural change processes with more suspicion and even perceive them as a potential threat. I use three social identities and a general anomia measure to test these assumptions empirically: occupational identities, social class identities, and East/West German identities.

The results of my paper support this thesis. Three overarching findings can be summarized.

Firstly, three different forms of social recognition are associated with populist attitudes: the lower the perceived recognition of one's social class, occupational group, and/or East/West German identity, the greater the likelihood that respondents will exhibit populist attitudes.

Secondly, I also show that a feeling of anomia correlates strongly with populist attitudes. In other words, if people feel that cultural and economic processes are changing so quickly that they can no longer clearly assign themselves to a particular social group, this can lead to populist attitudes. Thus, I show that social identities have two overarching functions - in addition to the evaluative function, which is particularly emphasized in SIT and forms the basis for positive self-esteem, social identities have a cognitive control function. This means that people can locate themselves in society through group memberships, whereby they receive norms and social roles directed at them as instructions for action.

Thirdly, my analysis shows that the recognition of social identities is an important addition to existing explanatory approaches. Those who feel recognized in their social identities are more willing to cope with feelings of economic and cultural threat and to resist populist movements. In contrast, too little social recognition can lead to such feelings of threat being reflected even more strongly in populist attitudes.

This paper illustrates the importance of recognizing social identities for liberal democracies. Targeted measures to increase perceived recognition within the population could be an effective means of consolidating the acceptance of liberal democracy, strengthening the resilience of this form of government.

### 5.1.3 social class recognition and acceptance of climate change mitigation policies

In the last paper, I focus on the acceptance of climate change mitigation policies as another form of social resilience. As with infection control measures during the pandemic, this is a collective good problem (McGrath, 2021; Ostrom, 2010). Although it is in everyone's interest to slow the pace of climate change by reducing emissions, short-term costs must be accepted for these long-term and barely noticeable successes. It is crucial for the success of climate change mitigation measures that they meet with broad acceptance and are also implemented by large sections of the population. This is the only way to achieve effective reductions in emissions.

At first glance, a connection between the recognition of one's own social class identity and the acceptance of climate change mitigation policies does not seem intuitive. However, recognition of social identities can 1) increase perceived self-esteem and self-efficacy and 2) activate norms of solidarity. Previous studies have demonstrated that increased self-esteem and self-efficacy correlate with higher acceptance of climate change mitigation policies and pro-environmental attitudes (Hamann & Reese, 2020; Umit & Schaffer, 2020). Solidarity norms can have additional effects as they may introduce a moral obligation to commit to climate change mitigation policies for the benefit of society, even though individuals may face costs and restrictions in the short term.

Furthermore, the recognition of a social identity has a signaling function. Suppose citizens feel respected and the political system is responsive to their needs and demand. In that case, this should translate into a higher willingness to accept policies (Tyler, 1998) – also those related to climate change mitigation. Besides these direct effects, I assume that the recognition of social identities lowers potential fears of (economic) costs caused by the policies in the short term, signals the benevolence of political institutions, and strengthens norms of solidarity. All these effects may then increase the approval rates of climate change mitigation policies. The results of the paper show that the recognition of social class identities is indeed important for the resilience of societies through direct and indirect effects.

Firstly, recognition per se has a significant effect on the acceptance of climate change mitigation policies.

Moreover, recognition of social class identities strengthens institutional trust and thus also increases compliance with climate change policies. This finding strengthens the benevolence argument. According to this argument, recognition signals to individuals that they are valued by society and its institutions, which is interpreted as a sign of goodwill (Tyler, 1998).

If society makes an advance payment in the form of donated recognition, this activates a norm of reciprocity in the individual. Therefore, the individual feels compelled to provide something in return for the recognition received, which may, for example, be the acceptance of a policy that promotes the common good.

Another mediation relationship concerns the potential economic challenges of more restrictive climate change mitigation policies. For example, higher taxes on fuel, goods, and food to compensate for a particularly environmentally damaging process could increase the cost of living, putting certain population groups at risk of poverty or making it impossible to afford certain goods. Accordingly, such measures should meet with rejection, particularly among social groups with a lower socio-economic status. However, the results show that the recognition of social class identities can be seen as a signal that weakens economic fears. Those who feel that their fears, needs, and requirements are recognized and considered are more willing to accept short-term costs caused by climate change mitigation policies in, assuming that these will either be adjusted with consideration for certain social classes or will not exceed a certain maximum level. However, this indirect effect of recognition through decreasing financial fears varies with the specific climate change mitigation policy asked about.

Therefore, this third paper introduces the recognition of social identities as a new mechanism that could increase the approval of climate change mitigation policies. Although there have been previous studies that used social identities and SIT as explanatory approaches for pro-environmental behavior and acceptance of climate change mitigation policies (Brick et al., 2017; Brieger, 2019; Cole et al., 2022; Faure et al., 2022; Fielding & Hornsey, 2016; Wallis et al., 2022), these focused on environmentalism – the idea that environmental awareness is so strong that it shapes identity. Contrary to this literature, I do not focus on the substance of social identity, but argue that the recognition of social identity as a mechanism has a decisive influence on the acceptance of climate change mitigation policies. The findings suggest that social recognition has indirect effects on important factors influencing social resilience. Despite the arguable thematic independence of social classes on the one hand and climate change mitigation policies on the other, I find effects of recognition on the acceptance of climate change mitigation policies. This can indicate that the recognition of social identities is a global mechanism that is valid regardless of specific content.

## 5.2 Conclusions and policy recommendations

Based on the results of my empirical analyses, I can draw several conclusions. First, I can answer the overarching research question of this dissertation—whether the resilience of

individuals, societies, and liberal democracies can be increased through the recognition of social identities—with a yes. All three papers have shown that the recognition of three different social identities improves resilience in individual, political, and social terms.

In addition to this general finding, I also tie in with several specific debates in the literature. With regard to the recognition of occupational identities, an important finding is that, compared to other occupational groups, essential occupations and so-called “baseworkers” (people in essential occupational which do not require any formal training) did experience an increase in social recognition during the COVID-19 pandemic, but that their level of recognition remains lower than that of other occupational groups in financial and relative terms. This fills a gap in the literature, as there have been no quantitative measurements of the stress and appreciation of baseworkers and essential occupations, even though this topic was widely debated in the early stages of the pandemic and is still of interest for policymakers (Bundesministerium für Arbeit und Soziales, n.d.; Mayer-Ahuja & Nachtwey, 2021). While the overload of nursing and hospital staff in particular has been empirically documented for some time using the effort-reward imbalance measurement (Kivimaki et al., 2007; Klein et al., 2010; Siegrist, 1996; Siegrist et al., 2019), there have been no systematic surveys of other potential occupational risk groups for overload. With this dissertation, I have made a start and provided potential measurement instruments for future empirical studies.

The findings have revealed political implications and potential. For example, policymakers should close the recognition gap for baseworkers and essential occupations. Otherwise, critical infrastructure could quickly reach a point of overload in a crisis similar to the pandemic. Baseworkers and people in essential occupations feel particularly disadvantaged in financial terms. Special payments could provide short-term relief. In the long term, however, these occupations must be more attractive through higher wages and more secure employment conditions. This could also be achieved by preventing temporary work and subcontracting, and introducing higher minimum wages in the relevant sectors and occupations. This would increase the individual resilience of workers in these occupations and, at the same time, increase social resilience through a possible increase in the number of employees and better provision for those already employed.

Both the findings from the first paper on the link between occupational recognition and compliance with infection control measures and the findings from the third paper on the impact of social class identity recognition on the acceptance of climate change mitigation policies show

that social identity recognition can be a supporting factor in policy implementation. To date, neither the literature on the acceptance of climate change mitigation policies nor research on crisis management has discussed the recognition of social identities as a possible mechanism for increasing citizens' willingness to approve new policies. The recognition of social identities sends signals to citizens, strengthening trust in institutions. Institutions that take the needs and concerns of their citizens seriously are perceived as benevolent, responsive, and trustworthy. Experiences of self-efficacy and the activation of norms are also positively influenced by the recognition of social identities. This is a lever for solving collective good problems.

Thus, policymakers should involve citizens in policy design when dealing with collective good problems. In this way, political decision-makers signal to their citizens that they are interested in their opinions and respect their needs. This makes citizens feel recognized in their various social identities, which in turn may have a positive effect on the acceptance and implementation of policies to solve collective good problems.

Furthermore, I examined the emergence of populist attitudes to analyze the resilience of liberal democracies. My analyses have shown that the recognition of social identities can be a complementary third approach to the LOM (Betz, 1994; Gidron & Hall, 2017; Rydgren, 2007; Spier, 2010) and CBT (Norris & Inglehart, 2019). On the one hand, threats to social identities per se can contribute to making a turn to populism more likely. On the other hand, the thesis of threatened social identities also explains why experiences of economic and/or cultural devaluation should lead to populist attitudes in the first place. Economic and/or cultural threats signal to individuals that their social identity is being questioned and potentially attacked. Since a positive social identity is essential for people, they seek strategies to preserve their positive social identity. One possible strategy may be to turn to populist actors who present themselves as preservers of traditional hierarchies of recognition and status and who want to restore the old status quo in the face of the threat. This argument has been taken up repeatedly in the literature to date (Groß, 2021; Manunta et al., 2022; Steiner et al., 2023), but in my theoretical framework and based on the empirical results in my second paper, I provide a coherent explanatory framework for how recognition deficits of social identities and populist attitudes are related.

Applying this to the resilience of liberal democracies, I can derive policy recommendations. First, the recommendations are based on the assumption that the resilience of liberal democracies is reduced when the individual resilience of individuals is attacked and populist attitudes increase. For example, individual resilience can be weakened by perceived attacks on one's social identities. Here, policymakers can already take several approaches. If, for example,

citizens feel that their social identities are threatened in cultural terms (e.g., by allowing same-sex couples to marry), communication is important when implementing this policy. A clear and reasoned explanation of why this policy was implemented and that it is primarily about strengthening the rights and identities of previously marginalized groups rather than devaluing previously better-off groups provides clarity to citizens who may feel threatened in their social identity. In addition, policymakers can prevent feelings of threat by engaging in dialogue with citizens of other social identities. In this way, political actors signal that they are interested in the concerns and problems of their citizens. However, it is at least as important that they maintain communication with citizens throughout the broader policy process. Citizens will only feel that their social identities are respected if they are given transparent and understandable explanations of how their concerns are being considered and why this process may take longer. Especially when policymakers cannot consider their citizens' concerns, it is important that policymakers explain why they (are forced to) act in this way and what alternatives they are exploring.

### 5.3 Limitations & avenues for future research

Even though this dissertation provides evidence that the recognition of social identities may be a mechanism that can explain resilience in the context of various crises and thus serve as an important tool, this work can only be seen as an exploratory beginning. Various limitations restrict the general transferability to other contexts.

Some significant limitations are due to the availability of data. Although I was able to collect data together with my colleagues Martin Groß and Volker Lang, I had to cut back in some respects due to limited resources and the large number of data requirements.

First, the sample consisted of participants in the commercial Payback Panel provided by Kantar. This raises the question of the extent to which this panel corresponds to the German population and to what extent there are selection effects, as a basic condition for inclusion in the panel is participation in the provider's bonus point system, which violates the inferential statistical assumption that all persons from the population have the same chance of being drawn. Online access panels are viewed critically from a data quality perspective, and researchers need to be careful in concluding (Callegaro et al., 2014; Cornesse et al., 2020). A register sample would have been ideal, but this was not possible due to the urgency of the dynamic infection rates during the pandemic and due to financial resources. Compared to other online access panels, it appears that this provider mitigates selection effects by not allowing participants to recruit themselves into the panel, but by actively recruiting potential panelists to the panel who improve the coverage of a certain socio-demographic characteristic in the sample compared to the

overall German population in that same characteristic (infratest dimap, n.d.). In addition, it can be observed in large international surveys that there are also biases in the sample and that specific demographic groups are underrepresented due to non-response (Gummer, 2019; Jabkowski & Cichocki, 2025; Koch & Blohm, 2016). In this respect, depending on the research interest, the Payback Panel may not necessarily provide significantly poorer data quality than register samples.

The sample drawn for the analyses in this dissertation consists only of the working population in Germany and does not capture the population as a whole. This means that non-employed persons are not included in this sample: unemployed persons, job seekers, possibly students, homemakers, and pensioners. No statements can be made for these population groups based on the results of this dissertation, which excludes roughly a quarter of the German population in 2020 (Statistisches Bundesamt (Destatis), 2025).

This focus on working people was because the primary research questions were aimed at working life and the change in occupational recognition in the wake of the COVID-19 pandemic. A large part of the questionnaire would have had no relevance for non-working people and could therefore not have been asked of them. Participation in the survey was therefore de facto not possible. At the same time, it can be argued that non-working people, a heterogeneous group in itself, are affected by crises differently from working people.

Another limitation is that the data is cross-sectional. This means that no definitive statements can be made about causality. This would require either longitudinal data or experimental designs. In this respect, causal directions can only be assumed based on theoretical assumptions and mediation analyses. Furthermore, cross-sectional data are susceptible to period effects, which are to be expected given the prevailing pandemic at the time of the survey. Although this made it possible to address important research questions because the related issues, such as occupational recognition, were particularly salient (Mayer-Ahuja & Nachtwey, 2021), it would be desirable to validate the results by reviewing the research interests with a data set at a second measurement point in time.

The other limitations relate in particular to the measures for recognizing social identities. In the data collections on which the dissertation is based, only three social identities were examined - four if job and occupational identities are considered separate social identities. This means the data set only covers a fraction of all potential social identities. Although a comprehensive

survey of several social identities is not practicable due to the high repetitiveness required in questionnaire design, it should be noted that all social identities used in the survey are strongly related to economic criteria. While social class and occupational identities correspond directly with socio-economic categories, it can also be argued that East and West German identities are shaped by experiences of economic inequality (Deuverden, 2020; Hartmann, 2024; Weisskircher, 2020). In the most recent political debates, however, tensions and lines of conflict are being discharged along cultural boundaries (Mau, 2024; Pickel & Pickel, 2020). In this respect, to what extent the social identities examined to date only address part of the political and social crises must be questioned.

Moreover, SIT postulates a two-stage identity process: in addition to cognitive self-assignment to a specific group in a social category, this group membership must also be combined with a minimum level of emotional attachment so that the social identity is relevant to one's own behavior (Tajfel & Turner, 1979, 1986). Accordingly, there should be a moderation relationship: For those who feel strongly connected to a social identity, the degree of recognition received for this identity should have an even stronger effect on the resilience of these individuals. We incorporated measures to account for the magnitude to which individuals feel attached to a certain group. However, including these measures in analyses revealed no expected interaction effects. Accordingly, these analyses were not included in the published papers and did not go beyond an exploratory status. Several potential reasons may have caused this finding.

A first explanation could be that our instruments do not adequately measure the degree of emotional involvement. However, we used a previously tested scale to measure occupational identification intensity (Felfe et al., 2002), which should reduce the risk of potential measurement errors. Moreover, the item scales resulted in the expected factor structure with acceptable loadings, indicating internal validity once more.

Another explanation could be that the recognition measurement includes the dimension of emotional involvement. Only those who attach emotional significance to their social identity, at least to a certain degree, will assess the recognition they receive and complain about a deficiency. In this respect, the measurement of recognition received or not received would already be a more specific measure of emotional satisfaction with one's own social identity. Another reason for the lack of interaction could be that the chosen social identities do not necessarily require emotional reinforcement. Following on from the previous point of criticism, it is possible that the social identities of occupations and social class used, for which the degree of connectedness was also surveyed, are so strongly influenced by economic factors and linked to the factual realities of life that a low reported emotional connectedness weighs comparatively

weakly, because the objective states of life cannot be ignored and always have practical implications in everyday life, so that it is almost impossible to separate the cognitive and emotional components. In other words: even someone who does not identify strongly with his or her social class, but feels cognitively that he or she belongs to this class, will feel the associated restrictions and conditions in everyday life. If these persons then indicate a lack of recognition or satisfaction with the recognition they receive, this is already a sign of how well the objective state of life is. The degree of emotional closeness with their social identity then recedes into the background.

These and other potential derivations should be discussed further in line with the assumptions of the SIT. Future empirical work should address the question of the extent to which the emotional component of SIT is linked to cognitive self-evaluation and how these two components relate to the recognition of social identities. In particular, the extent to which a measurable separation can be made between emotional attachment to a social identity on the one hand and a measurable level of recognition on the other could be the subject of future analysis.

A final shortcoming of this dissertation is that in the theoretical chapter of this work, I go into detail about Fukuyama's (2019) conception of isothymia and megalothymia. However, in the empirical part, I focus on the experienced isothymia and its effects on different resilience measures. There are various reasons for this.

First, megalothymia involves two assumptions: a particular group within a social identity must believe that it is superior to the relevant out-groups of that social category. Secondly, this in-group must then desire for this superiority to be recognized by the other groups. Only if these two conditions are met can megalothymia be measured. From a measurement theory perspective, the difficulty is that this construct can only be measured with these two prerequisites in a cumbersome process and under various assumptions. We decided to measure potential megalothymia with regard to occupational group identities and job identities in two stages by first asking whether people feel that their respective in-group is superior to the out-groups in terms of their performance or abilities. However, several difficulties immediately arise here.

Firstly, job identities cannot be referenced to a group level, so the individual is ultimately asked to assess their superiority. This is where the second difficulty comes into play: occupations and work performance are stratified since, in the logic of modern labor markets, higher performance is rewarded with a higher salary or income, thus creating an incentive to optimize performance. This means that the respondents' assessments are impaired purely in terms of the status in the ranking of professions or hierarchies in companies. An assessment of our question could be

based less on personal convictions and more on socially anchored principles. In a second step, respondents who felt that they had better skills or achieved more were asked a follow-up question in which they were asked whether they felt they received adequate recognition for their assumed superiority. Here, we had to decide on who to filter out and who to ask the follow-up question. We decided that those who crossed at least the middle category on a five-point Likert scale could give a reasonable assessment for the second question. This choice was therefore not based on objective criteria and constitutes an arbitrary intervention. Moreover, even assuming that the data collected in this way is reliable, the question remains as to how the answers to the two questions can be combined to form a global indicator of megalothymia.

Given all these imponderables, my previous analyses did not go beyond exploratory attempts. This dissertation thus serves as a starting point that can be refined in two directions through more recent research. The first direction is primarily concerned with validating the results presented here. This means the hypotheses and results presented in this paper should also be checked again with representative data. In particular, including people who are not employed should be given top priority here. Moreover, it would also be interesting to see to what extent this mechanism can be found cross-culturally, which is why tests in cross-national studies would represent great added value. Most importantly, longitudinal or experimental data would greatly benefit in disentangling the causal relationship and testing the assumptions I present in this regard.

A second path for linking to this dissertation deals with a potential extension of the theses discussed so far. First, measuring other social identities and the degree of recognition they receive in the future would be important. My colleagues Stephanie Jütersonke and Martin Groß provided one extension by examining the recognition of generational identities and the impact on the approval of climate change policies (Jütersonke & Groß, 2023). Furthermore, national identities have been the subject of frequent research (Ariely, 2020; Helbling et al., 2016; Miller & Ali, 2014). National identities have primarily been associated with trust (Gustavsson & Stendahl, 2020; Miller & Ali, 2014; Wamsler, 2023), discrimination (Hjerm, 1998; Molina & Preddie, 2020; Wagner et al., 2012), and nationalism/patriotism (Ariely, 2020; Blank & Schmidt, 2003; Li & Brewer, 2004), not yet with perceived recognition of the in-group. Norris and Inglehart (2019) name further identities, including gender identities, sexual identities, and religion, which would be worth considering in future analyses.

Second, the question arises as to what extent it is possible to measure whether and to what degree people feel a genuine connection to social identities in specific. Various difficulties arise

here. Are individuals aware of a sense of belonging? Can they articulate this sense of belonging? Can this sense of belonging be expressed quantitatively? Is this sense of belonging too strongly tied to specific contexts? Detailed cognitive and quantitative pre-tests could provide insight into these open questions.

Third, there is great potential for innovation regarding whether and how megalothymia can be adequately measured in social identities. The particular challenge in developing items here is that two stimuli must be addressed directly. On the one hand, respondents must be convinced that their in-group is superior. On the other hand, these respondents must also claim that other people should recognize this superiority. In our previous attempts, we responded to the challenge of double stimuli by dividing the concept into two items. However, this variant merely postpones the problem. Should the second question about perceived recognition be asked of all respondents or only those with minimum superiority in the first question? How should the data be processed after the collection? Can we derive a single indicator of megalothymia based on the two items? Future research should address these questions to test the theoretical assumptions underlying Fukuyama's (2019) argument.

Despite the shortcomings, this dissertation has innovative potential, as it systematically analyzes the importance of recognizing social identities for individual, political, and societal resilience. By linking theories of recognition and identity and developing quantitative measurement scales based on these theories, this contribution offers a promising foundation for future research in the fields of recognition and identity studies, and research into political attitudes and various forms of resilience. In addition to its significance for academic work, this dissertation also provides insights for policymakers in crisis management. Given the frequency of crises in recent years, it is all the more important and encouraging when academia finds solutions to social problems. In contrast, crises can still be managed and averted.

## References conclusion

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