

Citizens' Contestation of a just Climate Policy

Exploring Perceptions of Distribution, Procedure and Recognition
Justice of Climate Policy: A Case Study of the Yellow Vests
Movement



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SUMMARY

States worldwide are facing the challenge of implementing climate mitigation policies that are accepted by the public. Especially carbon pricing has met strong resistance. Among other factors, climate policy acceptance can be predicted by one's subjective perceptions of a policy being (un)just which are influenced by the individual's personal characteristics and situational factors. Based on an in-depth case study of the contestation of a just climate policy by the French *Yellow Vests* movement, this study seeks to analyze citizens' justice perceptions as determinant of climate policy acceptance.

Specifically, it focuses on (1) exploring patterns of justice perceptions of climate policy across citizens and (2) identifying causal links that explain which underlying factors influence these perceptions. The trivalent framework of Environmental Justice consisting of distributional, procedural and recognitional dimensions, and perceiver and situational factors derived from basic justice perception theory are operationalized in a content analysis of primary data, including 383 citizens' statements from public and governmental sources. Using abductive reasoning, previously insufficiently considered interrelations are revealed in an analysis of strongly deviating semantics of Facebook comments, Parliamentary debates, and two citizens' participatory processes i.e. *Grand Débat National* and *Convention Citoyenne pour le Climat*.

All justice dimensions are present in the analyzed statements. Distributive justice is addressed in various ways and can be linked to income effects resulting from carbon pricing. Lowest incomes, the mobility dependency of many French citizens, and the undercharged industry are in focus. Procedural injustices are linked to the idea that the government and hence climate policy, are dominated by economically oriented elites, which deny citizens access to decision-making processes. The insufficient consideration of future generations or nature as such dominates the perception of an unjust recognition.

The influence of the identified factors can be mapped into nine causal structures, which in turn can be grouped into three thematical groups. The first group shows the influence of unequal income distribution, neglected transport infrastructure and preference for industrial agriculture on perceived injustices. The second group shows the perceived value-orientation of the elites, distrust in the government and the insufficient presence of France in international climate policy as main factor. The main influencing factor of the third group is the YV's socio-ecological self-understanding, from which perceptions regarding the justice of strong civic engagement are derived. In context, the findings suggest how the identity of the YV as a social group can be reconstructed from the thematical groups.

Key words: climate policy, policy acceptance, justice perception, Environmental Justice, Yellow Vests movement

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LIST OF ABBREVIATIONS

CAP	Common Agricultural Policy
COP	Conference of the Parties
CCC	Citizens' Convention on Climate (<i>'Convention Citoyenne pour le Climat'</i>)
CCE	French carbon tax (<i>'Contribution Climat-Énergie'</i>)
EJ	Environmental Justice
GHG	Greenhouse gas
LTECV	Green Growth Act (<i>'Loi relative à la transition énergétique pour la croissance'</i>)
ISF	Solidarity tax on wealth (<i>'Impôt de solidarité sur la fortune'</i>)
RIC	Citizens' initiative referendum (<i>'Référendum d'initiative citoyenne'</i>)
VAT	Value-added tax
UN	United Nations
WTO	World Trade Union
YV	Yellow Vests

CHAPTER 1. INTRODUCTION

1.1. Problem description

With the adoption of the Paris Agreement in 2015 state leaders have agreed to limit global warming to 2°C compared to its pre-industrial levels to prevent dangerous climate change (UNFCCC, 2015). This requires the control of greenhouse gas emissions, as primary driver for the rising temperatures, predominately emitted as CO₂ by human activities. In this respect, one of the most popular policy instruments next to systems of tradable carbon emissions are carbon taxes. By putting a price on CO₂ and thus internalizing its costs, carbon taxes seek to incentivize behavioral change to reduce carbon emissions (Haites, 2018).

While carbon pricing is commonly praised for its higher cost-effectiveness in comparison to other mitigation instruments, it has also met strong public opposition since it interferes in the individual situation of citizens and organizations both economically and regarding the freedom of choice. Needless to say, a lack of public acceptance can hinder the successful implementation of any policy. At last, public acceptability of policy translates into political choices. Changes in the political direction as effect of election question the continuity of environmental legislation. A questionable re-election of a government might have the same effect (Drews & van den Bergh, 2016).

Public acceptance of climate policies depends on a multitude of factors, reaching from political orientation, climate change knowledge, and the perception of the policy design to its communication (Drews & van den Bergh, 2016; Kyselá, Ščasný, & Zvěřinová, 2019). How policies are perceived by the public is arguably seen as critical factor of the socio-political context within which policy makers operate (Leiserowitz, 2006). In this regard, the public perception of policies as just or unjust can function as key predictor of policy acceptance (Eriksson, Garvill, & Nordlund, 2008; Kals & Russell, 2001; Lange, Vogt, & Ziegler, 2007).

The question of perceived justice becomes predominant in climate policy since policies may address only a selected part of citizens and organizations in the distribution of burdens and benefits, as a consequence differences within these groups are often neglected (Maestre-Andrés, Drews, & van den Bergh, 2019). In a similar vein, justice perceptions also concern procedural and recognitional aspects of climate policy, as they are commonly conceptualized in *Environmental Justice* theory (e.g. Schlosberg, 2007). To capture and to better understand the significance of perceived injustices as determinant of climate policy acceptance, I claim that the French *Yellow Vests* (YV) movement proves as a suitable and rather telling case. In November 2018 the planned implementation of a new carbon tax reform as part of a policy

change triggered nationwide mass protests and led to the birth of the *Yellow Vests* movement. Four weeks after the first backlash, as the wave of protests was nowhere near to subside, incrementally growing public pressure made the government finally suspend the carbon tax (Lem, 2020).

While the motivations that brought people to the streets varied, one key factor was that protestors collectively perceived the planned policy change as unjust, despite being differently affected by its burdens, as reflected in their different socioeconomic backgrounds (Douenne & Fabre, 2020b; Rucht, 2019). The YV claimed not only to represent the low-income households as factually most affected by the regressive incidence of the carbon tax linked to the fuel price but all those who perceived the undifferentiated tax as unjust for various reasons due to individual situations of their own and of others (Lem, 2020). Accordingly, it can be hypothesized that citizens' perceptions of what is just and unjust was subjective in this case.

While taking into account the specific French context of this case that also has an effect on the justice perceptions (Deutsch, 1975), this study aims to shed light on a more general problem: how do individuals perceive justice of climate policy being not necessarily personally factually affected by it? How can the consideration of justice perceptions help to understand why citizens oppose or support public policies in the context of climate change mitigation?

Although justice appraisals depend on the subjective way of thinking (Montada & Kals, 2000), the practitioners' emphasis in considering justice in climate policy-making, where citizens are affected by policy burdens and benefits, lies mostly on the broadly conceived collectivity, not on the individuals. Since a collectively expressed accusation of injustice - as in the case of YV - is not simply a summation of coherent argumentations but merges various point of views it seems necessary to at first focus on individual perceptions of injustice and then raise the question how these perceptions merge in a movement like the YV.

Specifically, justice perceptions can be thought of as subjective constructs that are shaped by individual (characteristics beliefs, and motivations) and situational factors (Hegtvedt, 2006). Most traditional research on justice in the context of climate political theory falls short in acknowledging the importance of justice perceptions in explaining how the public responds to policy. These studies are built on the assumption that there is one appropriate form of justice and empirically investigate justice in terms of e.g. economic or legal phenomena (Van den Bos, Van der Velden, & Lind, 2014). Therefore, to fully understand how justice perceptions of climate policy in a specific context are shaped requires the examination of the influence of individual and situational factors on perceptions of justice that extend beyond the usual focus on the collective (Kyselá et al., 2019; Van den Bos et al., 2014). Ultimately, the reconstruction

of individual justice perceptions is pivotal in the understanding of what makes climate policy acceptable to individuals and hence to political movements like the YV.

Even more than two years after the rise of the YV movement, policymakers in France are still confronted with the challenge to design and implement climate policies that will be perceived as just and are accepted, making the investigation of this problem a very timely endeavor.

1.2. Scientific and societal relevance

The scientific relevance of exploring how justice perceptions are shaped in the case of the YV furthers the theoretical understanding of the role of perception in climate policy research. This research expands the conceptualization of climate policy acceptance through basic socio-psychological modeling. Therefore, it yields insights into the diverse perceptions of justice that are crucial to understand climate policy acceptance (Montada, 2011). Social scientists like Rhodes, Axsen and Jaccard (2014) confirm this research is needed. In this study, *Environmental Justice* is viewed from a multiple-perspective approach, which places emphasis on the individual evaluation process that determines whether something is perceived as just or unjust. Hence, the theory of EJ is extended by the consideration of a *perception perspective*. This approach is key in the understanding of justice appraisals that are highly subjective (Baasch, 2020) and has remained relatively unstudied in the domain of governance in general (Van den Bos et al., 2014). Given that perceptions of justice are context-dependent (Deutsch, 1975), the specific findings of this research are bound to France and the YV. By applying an in-depth case study analysis, the understandings of justice can be discovered for the given context and help to acquire new theoretical insights by abductive reasoning and thus advance EJ theory.

Moreover, the societal relevance of conducting research on this topic is high, as it could contribute to policy-makers' understanding of designing, implementing and communicating climate policies that are both effective and politically acceptable, as the citizens' perspectives can be more closely considered (Carattini, Kallbekken, & Orlov, 2019; Rhodes, Axsen, & Jaccard, 2017). Climate policy must be socially sustainable, otherwise it cannot be enforced, as it is rejected by citizens and induces counteraction or disintegrates the (national) society as a social system (Kipfer, 2019). This is even more essential for the design and implementation of climate policies that impose burdens on citizens (Parry, 2015). In this regard, it is crucial to understand why carbon taxes are often unpopular among citizens. Keeping in mind that they are commonly implemented for climate mitigation as they are seen as promising due to their cost-effectiveness relative to the majority of alternative instruments (Jagers & Hammar, 2009).

The unpopularity of carbon taxes can be observed in France. A representative study has shown that in France 70% of the respondents reject the policy instrument (Douenne & Fabre, 2020b). Therefore, to understand where the citizens' aversion against the instrument stems from is a key consideration so that policymakers can obtain legitimacy especially for planned hikes in the carbon price. Only this way the desired trajectory of the carbon price can be successfully followed over time and international climate targets can be met (Haites, 2018).

1.3. Research objective and research questions

This research aims to further the understanding of justice perceptions as determinant of climate policy acceptance in the case of the *Yellow Vests* movement. This is attained by first, based on the established subdivision into the dimensions of distributive, procedural and recognition justice it is analyzed in which regard French climate policy is precisely perceived as unjust. In this context, the interrelations between the justice dimensions are of interest. Second, it is investigated which individual characteristics, beliefs and motivations are perceived as relevant for the judgements of injustice by citizens themselves and are therefore expressed, as well as which particular situations, both one's own and those perceived by others, are thematized. Third, the influence between individual and situational factors and justice perceptions of climate policy is established. Therefore, this research addresses the following research question:

How are justice perceptions of climate policy shaped in the case of the Yellow Vests movement?

To answer the research question, the present study is steered by the corresponding sub-questions (SQ):

SQ 1. Of which significance are distributional effects, participatory and recognitional aspects within the justice perceptions of climate policy in the case of the Yellow Vests movement?

SQ 2. Which perceiver and situational factors influence the justice perceptions of climate policy in the case of the Yellow Vests movement?

The following research framework (*Figure 1*) presents the appropriate steps to be undertaken in order to achieve the research objective (Verschuren & Doorewaard, 2010). To begin with, a literature review on climate policy acceptance, justice perception, and EJ theory provides findings to build the conceptual framework that is subsequently translated into an analytical

framework. Next, this analytical framework is applied to the empirical case of the *Yellow Vests* Movement, specifically to primary data of public and government stated data. A subsequent analysis of these findings yields patterns of perceptions of the justice dimensions as well as perceiver and situational factors that capture and unify the different statements into meaningful concepts so that they can be further investigated for potential causal links. In particular, nine causal perspectives are developed which are later condensed into three groups to highlight thematic similarities of the mechanisms. Finally, these findings are discussed and compared with literature, and policy recommendations are formulated.

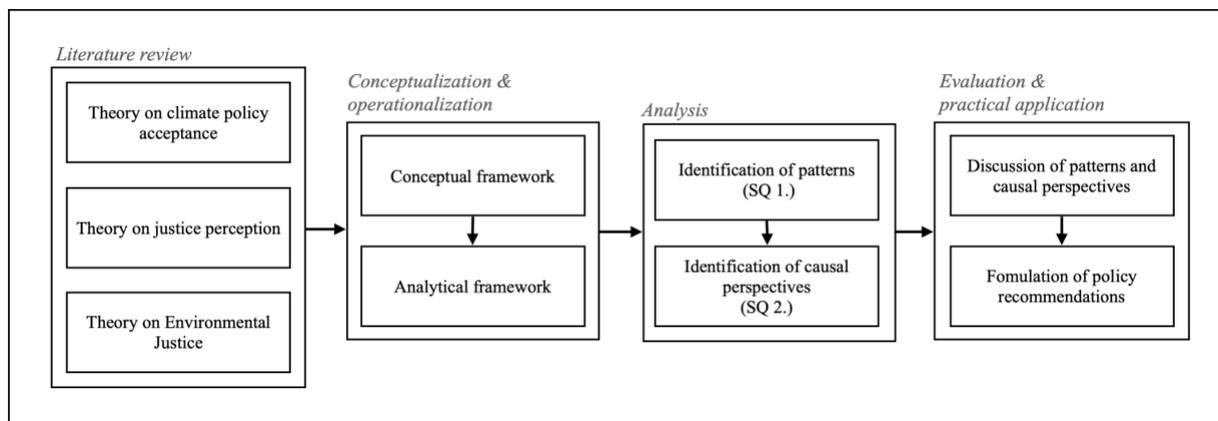


Figure 1. Research framework

1.4. Structure of the thesis

The remaining chapters are structured as follows. Chapter 2 provides a conceptualization of justice perceptions of climate policy drawing on relevant theoretical insights from the literature review. Chapter 3 describes the methodology used for the present study. Chapter 4 documents the *Yellow Vests* protests and its aftermaths to show the context of the perceptions which are to be analyzed. Chapter 5 and Chapter 6 present the findings from this study, while Chapter 5 addresses the first sub-question, Chapter 6 addresses the second sub-question. Chapter 7 reflects on the main findings using literature and discusses limitations and weaknesses of the research approach. The concluding Chapter 8 summarizes the key findings and arguments of this thesis and points to future research needs.

CHAPTER 2. THEORETICAL BACKGROUND

This chapter first describes the relation between justice perceptions and climate policy acceptance (2.1.), assisted by the explanation of the so-called justice perception process (2.2.), and then turns onto the analytical framework (2.3. and 2.4.), which informs and structures the empirical analysis that is conducted later in this thesis.

2.1. Perceived justice of climate policy and policy acceptability

Having introduced the problem at hand, this section elaborates on the causal link between perceived justice and policy acceptability that is presented in *Figure 2*. Inspiration is taken from the conceptual framework by Maestre-Andrés et al. (2019) on fairness and public acceptability of carbon pricing.

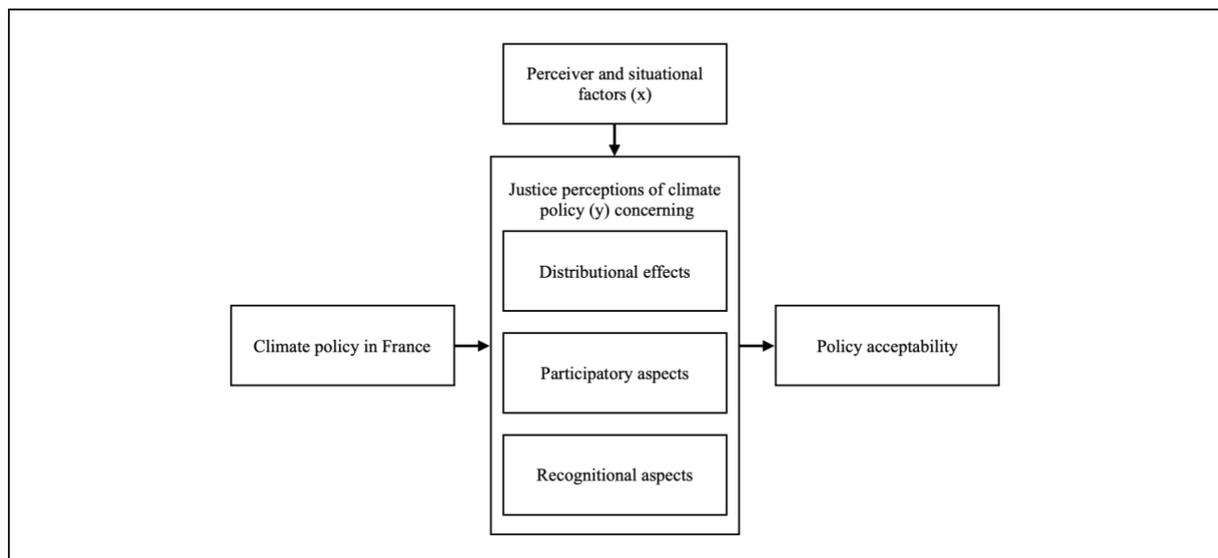


Figure 2. Conceptual framework of the relationship between policy acceptability and perceived justice of climate policy

To begin with, the main relation can be described as follows: the perception of climate policy as just or unjust has been found to significantly correlate with policy acceptability (Clayton, 2018; Dreyer & Walker, 2013; Maestre-Andrés et al., 2019). The justice perception of climate policy relates to distributive, procedural, and recognitional dimensions of policy and is influenced by sociopsychological factors called perceiver and situational factors. This relation is the focus of this study: it analyses which underpinned causes (x) i.e. perceiver and situational factors shape the justice perceptions of the relevant policy-dimensions (y).

2.2. Justice perception process

Generally, there is only very limited research pertaining to how aspects of perceived justice or fairness of climate policy affect public acceptance (e.g. Clayton, 2018; Dreyer & Walker, 2013; Maestre-Andrés et al., 2019). In these studies and in more general research on public acceptance of climate policy, most scholars refer to attitude-behavior models (Rhodes et al., 2017). The understanding of attitudes emphasizes the evaluation of a particular situation and it presupposes that in the formation of attitudes the entity has been perceived prior (Eagly & Chaiken, 1993). Most of these theories describe cognitive and behavioral reactions e.g. whether citizens accept policy, as outcome of attitudinal and contextual factors, which becomes evident e.g. in the Value-Belief-Norm (VBN) Theory by Stern (2000) or the Theory of Planned Behavior by Ajzen (1991) (as illustrated by the grey boxes ‘cognitive and behavioral reactions’ in *Figure 3*). These reactions are not considered in this study since the focus is set on justice perception. While these models are useful to systematize behavioral reactions that evolve from attitudes concerning justice, they fall short in explaining individual conditions of justice perceptions. Applying a *perception perspective* about how individuals perceive justice in the acceptance of governmental decisions has been mostly neglected within the domain of governance research (Rhodes et al., 2017; Van den Bos et al., 2014).

As already addressed, perceiver and situational factors together produce whether something is perceived as just or unjust. This underlying process of justice perception in which these factors are at play needs to be demonstrated. For this purpose, the justice perception process model by Hegtvedt (2006) is operated (*Figure 3*). Justice perception can generally be understood as “subjective evaluation of how just a perceiver thinks the situation is for herself or himself or for others“ (Hegtvedt, 2006, p.48). These justice perceptions are produced in a process where so-called perceiver or individual and situational factors together influence both what is perceived as just or unjust (*Figure 3*).

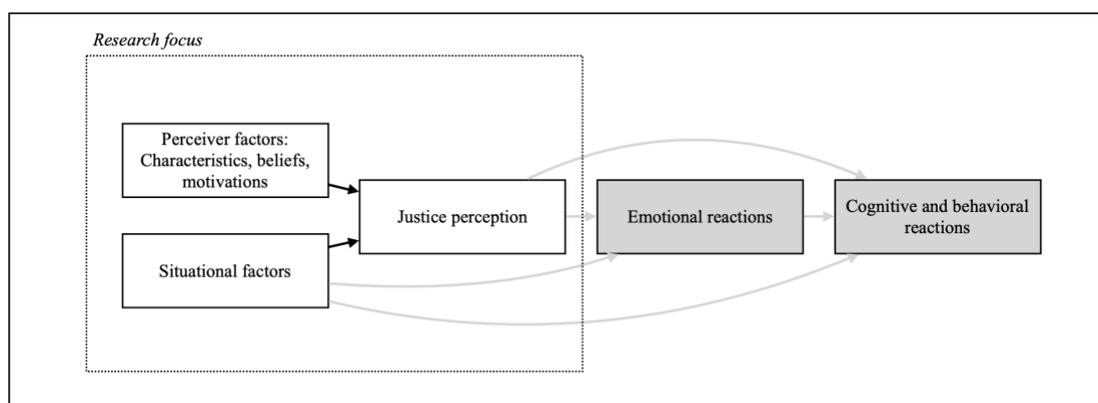


Figure 3. Basic model of justice process (Hegtvedt, 2006, p.47)

Perceiver describes the actor who assesses an outcome such as the distribution of policy burdens, either as direct recipient (first-party perceiver) or indirect recipient (third-party perceiver). Perceiver factors refer to one's individual characteristics, beliefs and motivations that influence as how just something is perceived. Individual characteristics describes one's status, performance level, personal formal position, relation to authority, and identity. These characteristics influence which justice principle one presumably expresses as a preference such as the principle of equity. Justice perceptions are often context dependent, which means that different principles apply in different circumstances (Deutsch, 1975).

Every individual has beliefs that are stored in a belief system that is utilized to make sense of society and the world (Usó-Doménech & Nescolarde-Selva, 2016). These beliefs adhere to philosophical, religious, political and cultural ideas. Individual characteristics and beliefs illustrate patterns of preferences that denote underlying motivations. Motivations refer to one's justice motive, in layperson's terms defined as "why people care about justice" (Ellard, Harvey, & Callan, 2016, p.127). This motive can manifest itself through self-fulfillment needs (e.g. material self-interest), psychological needs (e.g. prosocial motivation) and basic needs (Tyler & Dawes, 1993). The perceiver factors are constrained by situational factors that refer to the broader characteristics of a situation such as the domestic economic situation. Finally, justice perceptions are followed by emotional, cognitive, and behavioral reactions (Hegtvedt, 2006).

For the assessment of whether individuals characterize a distribution, a procedure or recognition as just or unjust, this study draws on the expectations/experiences distinction as suggested by Walker et al. (2011). When e.g. the distribution of policy burdens does not align with expectations based on justice principles, perceptions of injustice emerge. The experiences stem from the normative conceptions i.e. the beliefs of stakeholders about what constitute just principles in a given situation, in other words how they feel the situation ought to be (Parris, Hegtvedt, Watson & Johnson, 2014). Meanwhile, experiences refer to how stakeholders experience distributional, procedural or recognitional aspects of a policy, which is personal to the individual. Additionally, in order to understand what individuals subjectively think constitutes justice in climate policy, this study considers justice as subjective belief or conviction that cannot be objectively decided. This contrasts the perspective of normative disciplines that understand justice as transcendent or as singular truth that can be generally approved (Montada, 2011).

2.3. Dependent variable: Justice perceptions of climate policy

The dependent variable of this study's model concerns justice perceptions of climate policy, as explained in the conceptual framework. This section draws on literature on justice and fairness theory applied to climate policy support specifically on carbon pricing, EJ theory and on literature on the YV to construct the analytical framework of the dependent variable.

To begin with, why is the case of the YV movement relevant to study perceived justice issues displayed by climate policy? As already established, the rise of the YV can be considered as response to a climate policy that is perceived and actually understood as inherently unjust, wherein different social groups experience a differential exposure to climate policy burdens and benefits, opportunities to participate or not, being recognized as relevant stakeholder of policy or not. Therefore, the defined problem can be recognized as issue of social justice as a relevant topic in climate policy.

The literature body about justice in climate change politics is quite rich, the most prominent theories being *Environmental Justice*, climate justice, and energy justice. Although the theories vary in their conceptual focus, attempts have been made to unite the three scholarships under the term '*just transition*' with the aim to develop a comprehensive analytical framework and to enhance equity and fairness on the pathway to a post-carbon society (McCauley & Heffron, 2018). At the most basic level, *Environmental Justice* focuses on balancing environmental and social dimensions (Evans & Phelan, 2016). Climate justice deals with the distribution of rights and responsibilities of the consequences caused by climate change for vulnerable groups especially in the Global South (Kortetmäki, 2016). Energy justice focuses on energy systems and related production and consumption concerns (McCauley & Heffron, 2018).

It is assumed that EJ theory is the most suitable lens for this research inquiry as it allows to cover the expected strong diversity of topics relevant for individuals perceiving justice of climate policy in most general terms. Focusing on a specific system or scale would not be applicable in the measurement of the empirical data and would not suit the consideration of perceptions of climate policy. However, the conceptualization of justice of climate policy is not tied exclusively to EJ as central concept.

Environmental Justice is both a social movement and a field of research. In both realms it recognizes a form of social injustice that can be conceived as a set of actions that is concerned with the fair distribution of environmental benefits and burdens (Walker, 2012). Besides distributive issues, the concept of EJ encompasses issues of procedure and recognition (Parris et al., 2014). These three dimensions are closely intertwined, as they are all inherent to justice appraisals (Schlosberg, 2007). From a systematic point of view, recognition is a precondition

of participation in decision-making processes. Not to participate could increase the likelihood of bearing distributional disadvantages. Schlosberg (2007) remarks that injustices experiences are perceived simultaneously. Therefore, this study addresses the justice dimensions in a way that allows conclusions about the mutual relations.

2.3.1. Distributive justice

In this study, distributive justice refers to the perceived allocation of burdens and benefits resulting from climate policies (Bell & Rowe, 2012). Both policy burdens and benefits refer to command-and-control and market-based instruments. While policy burdens seek to incentivize behavior change to reduce emissions by increasing costs (e.g. through taxation or bans), policy benefits work with the same mechanism by decreasing costs (e.g. through subsidies or the promotion of new technologies).

The first key variable¹ of distributive justice *allocation of policy burdens* comprises four indicators each of them referring to the distribution of different target groups. It involves the distribution of policy burdens between firms and households, low-income and high-income households, among countries and sectors. In this study, the allocation of policy burdens predominately refers to the carbon tax as it is expected to be the most addressed in the perceptions of justice as initial trigger for the protests. Since the carbon tax burden is not evenly distributed between households and firms (Hanafi, Jousseume, Menner, Reichert, & Schwind, 2019), what costs these two actor groups bear is a central justice question and is indicated by the *distribution of policy burdens between firms and households*.

Second, *the distribution of policy burdens between households* is indicated. The regressive incidence of the tax displays strong unequal bearings that disproportionately affects low-income and poorest households (Baranzini & Carattini, 2017), hence the impacts of the policy burden on these two groups are operationalized. Likewise, as rural households are stronger impacted by the policy burden (Baranzini & Carattini, 2017), as there are provided with fewer low carbon transport possibilities than urban households, their perceived impacts are operationalized.

Third, the *distribution of policy burdens among countries* is indicated. Not only do perceive individuals distributional effects of domestic climate policy, but also those of other countries,

¹ For the description of the analytical framework the terminology of the qualitative research design (Chapter 3) is already used here to facilitate the immediate connectivity.

e.g. national carbon price levels, against the idea to globally share the burden of reducing emissions and bearing the policy burdens in a just way (Brannlund & Persson, 2012).

Fourth, the *distribution of policy burdens between sectors* indicates that climate policy e.g. through taxation schemes give exemptions or any other special treatment to certain industrial sectors, which is also the case for the French carbon tax (Deroubaix & Lévèque, 2006; Hanafi et al., 2019).

The second key variable concerns the *allocation of policy benefits* i.e. how revenues from carbon pricing are used has direct implications for the justice perceptions, since e.g. regressive impacts can be ameliorated by the redistribution of revenue to citizens (Maestre-Andrés et al., 2019).

2.3.2. *Procedural justice*

In this study, procedural justice refers to the “fairness in the process of decision-making and policy-making“ (Bell & Rowe, 2012, p.2) and recognizes *inclusiveness* and *participation* as its key variables.

The first key variable *inclusiveness* addresses the question of who is involved and given a voice in decision-making processes (Simcock, 2016). It is operationalized with the indicator *inclusion of relevant stakeholders* which is guided by the principle stating that those affected by a decision should also be involved to a certain extent in the making of that decision (Simcock, 2016). It specifically concerns which social groups are perceived to be overrepresented and underrepresented and in how far society as a whole is perceived to be represented in decision-making processes (Walker, 2009). According to Miller et al. (2015) when there is limited inclusion of affected groups in decision-making, policy acceptance will be lower, which could stem from the perception of finding the process as unjust.

The second key variable *participation* is led by the question of how stakeholders can influence the decision-making processes, in particular how their suggestions, opinions and concerns are considered in decision outcomes (Simcock, 2016).

First, *participation* is operationalized with *access in decision-making process*. It is indicated by the access to and transparency of decision-making processes, and the provision of information about climate policy. These aspects are essential in guaranteeing transparency, informed consent and effective participation (Simcock, 2016). In this study, access to decision-making processes refers to the question of whether stakeholders can critically examine policy issues and whether citizens can understand the climate policy, which is found to be a factor that positively influences policy acceptability (Baranzini & Carattini, 2017), and in how far citizens

are satisfied with the provision of information about climate policy and the transparency of decision-making processes that involves how information of decision-making processes is exchanged (Walker, 2009).

Second, *participation* is operationalized with *citizens' engagement in decision-making processes*. Engaging citizens through e.g. participatory processes in decision-making processes is a key factor in influencing policy acceptance especially when citizens perceive that they can voice their justice appraisals in shaping the final decision (Perlaviciute & Squintani, 2020). One of the main demands of the YV is to redefine the democratic process by permitting to change the law by referendum ('*RIC*') (Lem, 2020) to stronger involve citizens in the decision-making process. Therefore, citizens' engagement as indicated by the possibility for citizens to participate in political processes is assumed to be important in shaping individuals' perceptions of procedural (in)justices and is derived as further key indicator to assess *participation*.

2.3.3. *Recognition justice*

Recognition justice can be conceived as "the individual right to self-recognition and of collective identities and their particular needs, concerns and livelihoods" (Urkidi & Walter, 2011, p.685) that is subject to cultural and political domination, devaluation and degradation (Schlosberg, 2007). Not only, can recognition manifest as the failure of recognition of these identities but as misrecognition, meaning that their views and perspectives are distorted and consequently may appear devalued (Fraser, 1998). Therefore, injustices of recognition concern the failure to respect and acknowledge conflicting perspectives of groups rooted in especially social and cultural differences.

The dominating key variable concerns *the recognition of vulnerable groups*. Climate mitigation policies might neglect the indirect and often complex social and inequality impacts, such as on low-income households, people in need of care and future generations (Markkanen & Anger-Kraavi, 2019). As mentioned earlier, the distribution of regressive carbon pricing unequally imposes burdens on low-income and poorest households. Therefore, the *recognition of vulnerable groups* is indicated by the *attention for vulnerable groups in climate policy* i.e. how social groups are perceived or perceive themselves to be recognized in climate policy, as indicated primarily by the recognition of low-income and poorest households.

The analytical framework, shown in *Table 1*, presents the three dimensions, its five key variables and their nine indicators with their respective description.

Table 1. Analytical framework of justice perceptions of climate policy

Dimension	Key variable	Indicator	Description
Distributive justice	Allocation of policy burdens	Distribution of policy burdens between firms and households	Climate policy is perceived as just/unjust as the burdens are evenly/unevenly distributed between firms and households
		Distribution of policy burdens between households	Climate policy is perceived as unjust/just as it stronger impacts/does not stronger impact low-income, poorest and rural households
		Distribution of policy burdens among countries	Climate policy is perceived as just/unjust as the burdens are evenly/unevenly distributed among countries
		Distribution of policy burdens between sectors	Climate policy is perceived as just/unjust as it gives exemptions to some sectors
	Allocation of policy benefits	Redistribution of tax revenue	Climate policy is perceived as unjust/just as the tax revenue is/is not redistributed to certain actors or sectors
Procedural justice	Inclusiveness	Inclusion of relevant stakeholders	Climate policy is perceived as unjust/just as relevant stakeholders are/are not involved in decision-making process
	Participation	Access to decision-making process	Climate policy is perceived as unjust/just as the decision-making process is/is not accessible and/or transparent and/or sufficient information about climate policy is/is not provided
		Citizens' engagement in decision-making process	Climate policy is perceived as unjust/just as it more direct democracy is demanded/not demanded
Recognition justice	Recognition of vulnerable groups	Attention for vulnerable groups in climate policy	Climate policy is perceived as unjust/just as it does/does not recognize economic vulnerable groups such as low-income and poorest households

2.4. Independent variable: Perceiver and situational factors

In this section, I draw on the aforementioned theoretical propositions of the justice perception process by Hegtvedt (2006), socio-psychological research on justice, and literature on climate policy acceptance and the YV to construct the analytical framework of the independent variable.

2.4.1. *Perceiver factors*

Perceiver factors comprise the key variables *individual characteristics, beliefs* and *motivations* that are operationalized as follows.

The key variable *individual characteristics* is operationalized with the indicator *trust in government* that can be attributed to the individual's relation to authority. Several studies have investigated the role of trust in government in explaining support of carbon taxation (Hammar & Jagers, 2006; Sælen & Kallbekken, 2011), whereby trust is associated with increasing the probability of policy acceptance. Political trust has dramatically decreased in the last decade in France (Grossman, 2019). According to a study on political confidence over the period 2009-2019, a large majority of survey respondents consider the government as corrupt (74%) and not caring for the public's interest (85%) (Cheurfa & Chanvril, 2019). The growing distrust in the government could therefore be seen as factor that negatively impacts the public acceptance of climate policy overall (Algan, Malgouyres, & Senik, 2020; Kempin & Tokarski, 2019). Moreover, as a consequence of the government responding with police brutality against the protests, the relations to authorities of many protestors shifted and fortified the distrust (Kipfer, 2019).

The key variable *beliefs* is operationalized with the indicators *belief in climate change* and *belief in effectiveness of policy*. *Belief in climate change* is colored by political ideology, scientific literacy and personal experiences (Lawson et al., 2019). Believing in climate change can affect one's motivation to e.g. act pro-socially, stimulated to preserve the environment as a vital resource for others. Concern about environmental problems and climate change is positively correlated with the adoption of low-carbon behaviors and the willingness to pay the costs of climate policy (Krosnick, Holbrook, Lowe, & Visser, 2006; Rhodes et al., 2017). Similarly, Clayton and Opatow (2003) demonstrate that perceiving oneself as environmentally aware impels higher concerns with environmental justice. While the YV protests could be seen as backlash against carbon taxes, one could suggest that the movement opposes climate mitigation strategies all together. Yet, besides supporting a more just distribution of the tax burden, many of them also call for urgent climate action (Douenne & Fabre, 2020b; Jetten et al., 2020).

The second indicator *belief in policy effectiveness* concerns whether citizens believe that climate policy can achieve its desired outcome (Drews & van den Bergh, 2016). Perceived effectiveness and policy acceptance are positively correlated (Dreyer & Walker, 2013). It is assumed that this factor is relevant for the case, since the market-based mechanism of the carbon tax could possibly be viewed as ineffective, as it requires individual behavioral change

which could not be seen as most viable solution in terms of mitigating emissions next to feeling personally restricted by the negative impact of the tax on households' purchasing power (Douenne & Fabre, 2020a).

The key variable *motivations* is operationalized with the indicator *material self-interest*. *Material-self interest* can be defined as “tangible impact of an issue on the well-being of oneself or one’s family“ (Levine & Kline, 2017, p.2) and can be seen as motivator for increased issue engagement, such as political advocacy. The concern about material self-interest can influence one’s belief in the prioritization of issues and how just the treatment of this issue is perceived. Consequently, a policy can be accepted or rejected, possibly even stimulate action such as protest. It is assumed that this factor is crucial for the empirical case, as material self-interest e.g. automobile dependency among the majority of YV protestors is high (Douenne & Fabre, 2020b). Therefore, those who rely on private transportation do not have another option but to deal with the planned hike in fuel price and hence be concerned about the government exerting influence over the freedom of choice (Maestre-Andrés et al., 2019).

2.4.2. Situational factors

As situational factor the key variable *economic situation* is identified. It is operationalized with *income distribution*. An uneven *income distribution* can be associated with stronger perceptions that the political system and hence its climate policy is unjust (Jetten et al., 2020). *Income distribution* can be identified as situational factor as it concerns the perceived uneven distribution of policy burdens (Drews & van den Bergh, 2016).

This indicator is assumed to be relevant following Jetten et al.'s (2020) argumentation that the perception of growing economic inequality and connected to that the perceived power imbalance between the working class, elites, and the government formed the background of opposing the carbon. The perceived inequality of economic situations even within a societal group could lead to a perception of injustice concerning any uniform measure of climate policy like carbon taxation considering that the tax diminishes any income with the same amount. Furthermore, the perceived economic inequality could also be attested to the belief that households with lower incomes especially those in rural areas are disproportionately affected by carbon tax costs in comparison to households with higher incomes (Chédikian, Guillibert, & Lassere, 2020).

The analytical framework, shown in *Table 2*, presents the two dimensions, its four key variables and five indicators with their respective description.

Table 2. Analytical framework of perceiver and situational factors

Dimension	Key variable	Indicator	Description
Perceiver factors	Individual characteristics	Trust in government	Climate policy is supported/not supported as the government is/is not legitimized
		Beliefs	Belief in climate change
	Belief in effectiveness of policy		Climate policy is believed to be an effective/ineffective instrument to tackle climate change
	Motivations	Material self-interest	Climate policy positively/negatively impacts oneself or one's family
Situational factors	Economic situation	Income distribution	Climate policy is supported/not supported dependent on one's income

CHAPTER 3. METHODOLOGY

This chapter describes the methodology and methods used to collect and analyze data for purposes of this thesis. Based on the conclusions drawn from the literature review in Chapter 2, I argue that a qualitative approach is most appropriate in examining the contextual determinants and dimensions of the public justice perceptions of climate policy over the course of the YV protests and its aftermaths. Subsequently, I briefly touch upon why an exploratory study is conducted (3.1.), and then describe the qualitative method used including data collection (3.2.), data sources (3.3.) data sampling and analysis (3.4.) and data processing (3.5.). Finally, ethical issues of this study are stated (3.6.).

3.1. Research strategy

In order to answer the main research question, a qualitative approach is chosen. This research examines how various perceptions play out depending on the contrasting individual characteristics, beliefs and motivations of citizens and their specific situations. As suggested by Boeije (2010) “the purpose of qualitative research is to describe and understand social phenomena in terms of the meaning people bring to them” (p. 11), hence it is appropriate to use for the purposes of this thesis.

For this research a case study analysis is conducted, as it allows to explore complexity of perceiving and understanding justice of climate policy. The YV protests are a unique phenomenon bound to the national context of politics in France, which is confined in time and space. A case study analysis enables to gain full and profound insight into this single research unit (Verschuren & Doorewaard, 2010) and makes it possible to consider the situation in which the formation of justice perceptions takes place as a contextual variable.

Furthermore, since this research intends to explore breadth in justice perceptions of climate policy, qualitative content analysis proves to be relevant to reveal communication trends and patterns of groups e.g. who share a similar justice perception (Mayring, 2000).

3.2. Data collection

In order to analyze justice perceptions in the case of the YV movement, it is necessary to consider the wider political and societal context in which the YV protests are embedded. Thus, the following data sources are not limited to data of YV groups but represent a wide cross-section of the French society. Primary data from governmental and public sources is combined to provide a broad overview over justice perceptions. Three different time spans are selected where policy change was induced as response to the uprising of the YV (*Table 3*).

Table 3. Data sources

Time spans of policy change	Governmental stated data	Public stated data
1: November 2018 - January 2019: Rise of Protests after implementation of increased fuel tax and subsequent suspension of tax	Delegates' speeches of public debates in the French Parliament	Posts and comments on public Facebook pages <i>Les Gilets Jaunes, Gilets Jaunes Infos</i> and <i>Gilets Verts</i>
2: January 2019 - March 2019: Period of nationwide consultations	Contributions to nationwide consultations	Posts and comments on public Facebook pages <i>Les Gilets Jaunes, Gilets Jaunes Infos</i> and <i>Gilets Verts</i>
3: October 2019 - June 2020: Period of Citizens' Convention on Climate	Contributions to Citizens' Convention on Climate	Posts and comments on public Facebook pages <i>Les Gilets Jaunes, Gilets Jaunes Infos</i> and <i>Gilets Verts</i>
2017: 21 October 2017 - Discussion and vote for the increase of the carbon tax for the years 2018 and 2019	Delegates' speeches of public debate in the French Parliament	No public stated data is collected for this time span

Time span 1: Rise of protests and suspension of planned tax hike

The first time span concerns the period from the rise of the protests as response to the planned hike of the carbon tax on fuel in November 2018 until the introduction of the nationwide consultations in January 2019. In response to the backlash by the YV, during this period social concessions were made by the French government such as an increase in the minimum wage. As for climate policy measures, the government reacted with a moratorium on the CO₂ price increase that was initially planned for January 2019 (Gagnebin, Graichen, & Lenck, 2019; Kempin & Tokarski, 2019).

Time span 2: Nationwide consultations

The second time span concerns the period of the nationwide consultations. For the period from mid-January 2019 to April 2020, the French president Macron announced *Le Grand Débat National*, where citizens and organizations could express their opinions and thoughts online and in town hall-like dialogues on topics such as ecological transition, democracy, participation, and representation (Kempin & Tokarski, 2019). For this research the contributions submitted by citizens for the topic of ecological transition are selected.

Time span 3: Citizens' Convention on Climate

The third time span concerns the work period of the Citizens' Convention on Climate from October 2019 to June 2020. For this citizens' assembly 150 French citizens were randomly selected with the mandate to formulate concrete measures in order to reach the national climate targets without compromising social justice concerns. Citizens and organizations were invited to participate with their contributions online for each of the six thematic sessions (Eymard, 2020). The thematic sessions included mobility, diet, housing, production, consumption and cross-cutting contributions.

Debate from 2017: Initial debate on carbon tax increase on 21 October 2017

Additionally, one further parliamentary debate in 2017 is analyzed that does not match the defined time spans. This debate is deemed relevant as further data source, as the increase of the carbon tax for 2018-2019 was explicitly debated when it was adopted as part of the state's financial budget for 2018 (Leboucq, 2018). During the first defined time span, while climate politically relevant laws and issues were discussed in Parliament, the carbon tax itself was predominantly mentioned to support argumentations in favor or against non-climate issues.

3.3. Data sources

Public and government stated data sources are selected to analyze citizens' statements. This enables to extract opinions of the YV from Facebook comments (public stated) as well as from citizens' contributions to the nationwide consultations and the CCC (government stated). In order to cover all time spans in the same way, it is necessary to analyze additional data sources. Parliamentary debates are considered appropriate assuming that politicians within that context address perceptions of citizens.

Government stated data

The first set of data includes a combination of three different publicly available data sources published by the French government. For the first time span, delegates' speeches of public discussions of the French Parliament are selected, including the debates on 19th November 2018 (Légifrance, 2018d), 22nd November 2018 (Légifrance, 2018e), 6th December 2018 (Légifrance, 2018a), 12th December 2018 (Légifrance, 2018b) and 18th December 2018 (Légifrance, 2018c) are selected. For the second time span, citizens could answer a survey about the ecological transition during the nationwide consultations (Grand Débat National, 2019). For the third time span, online contributions to the Citizens' Convention on Climate provide another

data source (Convention Citoyenne pour le Climat, 2020). In addition, the parliamentary debate on 21st October 2017 (Légifrance, 2017) is analyzed.

Public stated data

As further source of data Facebook posts and comments are selected. This data source can be applied to the three identified time spans. Facebook generally provides a rich source of qualitative data, as large parts of individuals' social lives are shared and recorded. Social media plays a crucial role as communication and mobilization tool of social movements. This is also reflected in the YV movement, where Facebook is used to organize offline collective action in groups and on pages (Çokluk Cömert, 2019; Rane & Salem, 2012). This source allows to unpack deep meaning within a selected group of the Yellow Vests, as it is relatively unfiltered in comparison to the other data sources, since it deploys direct and instant reactions.

An analysis is conducted which concerns the study of comments of users of three public Facebook pages: *Les Gilets Jaunes* with around 60,000 followers (Les Gilets Jaunes, n.d.), *Gilets Jaunes Infos* with around 110,000 followers (Gilets Jaunes Infos, n.d.) and *Gilets Verts* with around 23,000 followers (Gilets Verts, n.d.). These pages can be seen as representative data sources for the YV as they account for public Facebook pages with the highest followership of the YV. The *Gilets Verts* evolved as a subgroup of the YV with the aim to pursue matters of ecological transition and climate action. Hence, explicit references to climate policy are expected on this page (Franz, Marsh, Chen, & Teo, 2019). The open source program *Facepager* is used to fetch data from Facebook which is made available through application program interfaces (APIs) (Jünger & Keyling, 2013).

3.4. Data sampling and analysis

The data is systematically sampled given its complexity. This includes different data types (parliamentary debates, contributions to nationwide consultations and the CCC, and Facebook comments) and large data volumes (see *Table 4*). It is expected that each data element might reveal more than only one information for the further analysis.

First, an element is defined for each data source in order to allow comparability between the data sources with ranging quantities. The absolute number of selected elements per sampling round is determined by the estimated approximate it would take to interpret the data (*Table 4*). To allow equal treatment and consideration of the data sources, the time for the analysis of the number of elements per sampling round is calculated equal for each data source. The element size for one sample round consists of 81 elements. The analysis of the supplementary debate from 2017 is only once taken into account.

Second, based on the total element size and the absolute number of elements per sample, the relative number of elements per sampling round is calculated (Table 4). A number is randomly generated to select every n th element, so that all the elements have an equal chance of being selected for the sample.

Table 4. Definition of element per data source and data sampling

Time span	1	2	3	1	2	3
Data source	Debate	Contributions to nationwide consultation	Contributions to CCC	Facebook posts and comments		
Definition of element	1 debate	1 contribution/person	1 contribution/person	1 post with comments	1 post with comments	1 post with comments
Total element size	21	153,808	3,393	A 141 B 229 C 187	A 50 B 161 C 91	A 554 B 1,913 C 236
Data size per element	66 - 175 pages	10 - 300 words per survey answer	30 - 300 words	5 - 950 ² comments	5 - 950 comments	5 - 950 comments
Selected number of elements per sampling round	1	15	20	A ³ 5 B ⁴ 5 C ⁵ 5	A 5 B 5 C 5	A 5 B 5 C 5
Total number of selected elements	5 (of 21)	75 (of 153,808)	100 (of 3,393)	75 (of 557)	75 (of 312)	75 (of 2,703)
n th Element	21	10,254	170	A 28 B 46 C 37	A 10 B 32 C 18	A 111 B 383 C 47
Randomly generated start-number	13	120,067	671	A 12 B 150 C 24	A 17 B 24 C 36	A 71 B 489 C 151

² On average around 350 comments per post are analyzed.

³ refers to *Les Gilets Jaunes*

⁴ refers to *Gilets Jaunes Infos*

⁵ refers to *Gilets Verts*

Third, the concept of saturation is applied to the data analysis in order to determine how many sample rounds would be appropriate. Per sample round 81 elements are analyzed. This process is repeated round per round (81 elements per sample) until saturation is achieved. *Figure 4* presents the sampling and analysis process. Saturation is commonly defined as “the point at which no new information or themes are observed in the data” (Guest, Bunce, & Johnson, 2006, p. 59) and refers to the idea of completeness. This point is logically impossible to reach since theoretical insights can always be obtained in continuous collection and analysis of data. Hence, I follow the rationale by Low (2019) who advocates for a pragmatic definition of saturation of building a robust and rigorous conceptual model instead of searching for an absolute end.

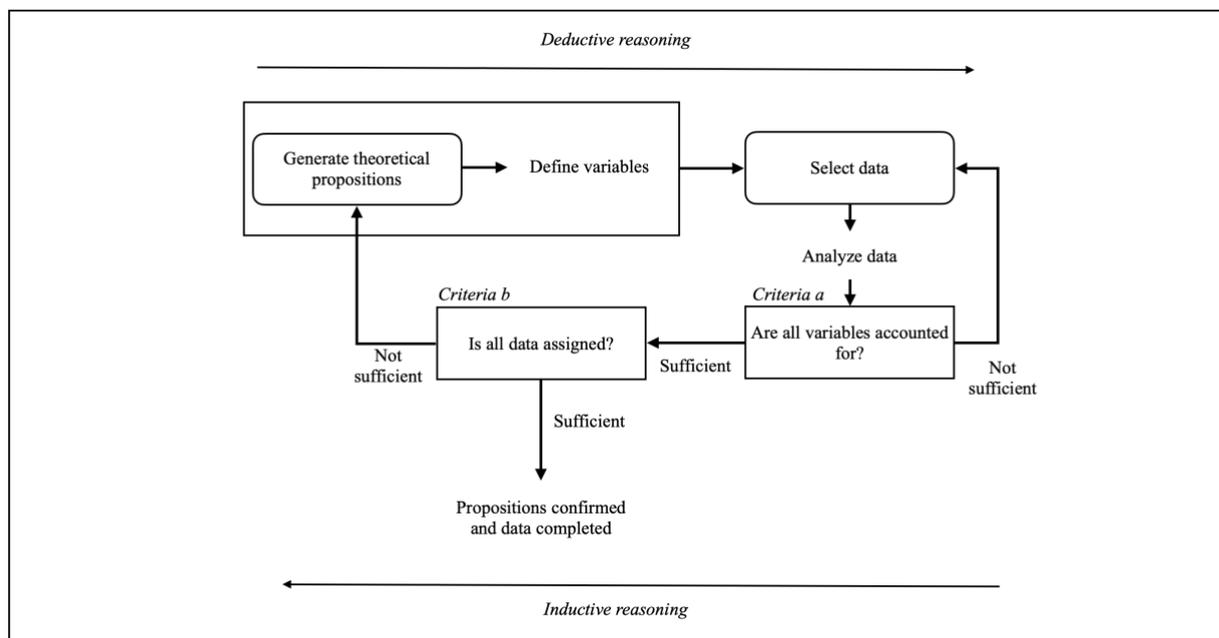


Figure 4. Sampling and analysis process

Since this analysis follows both deductive and inductive reasoning, a hybrid form of saturation is needed that covers both of these aspects. Meaning, that in this study saturation refers to the extent to which pre-defined variables are adequately represented in the data (*Criteria a*). In order to allow variables and broader themes to emerge inductively, saturation is also determined by the extent to which no new codes or variables can be identified (*Criteria b*). This point was reached after the fifth round of sampling. The data collection and analysis are continued for one further round to ensure and confirm that there are no new themes emerging (Saunders et al., 2018).

3.5. Data processing

3.5.1. Coding process

In this thesis the qualitative data analysis software *NVivo* is used to facilitate the coding process of the large data volume. Since it is not intended to analyze the internal structure of each contribution element as such, a contribution that continued several statements is divided accordingly. Otherwise the evaluation density (diverging number of statements in elements) would be asymmetric. *Figure 5* gives an overview about the steps of the coding process. The number in brackets indicate the steps that are taken.

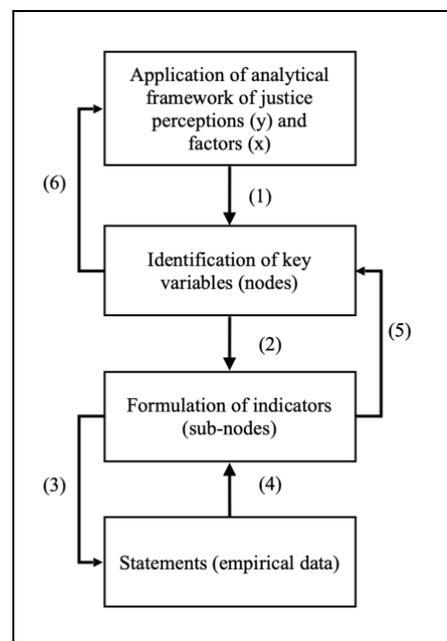


Figure 5. Abductive coding process

Following deductive reasoning in the beginning, theoretical propositions i.e. key variables are generated in Chapter 2 as part of the conceptual basis (step 1). They are operated as so-called nodes in *NVivo*. These are further specified into indicators in the analytical framework, which are the basis for the thematically guided handling of the statements to be analyzed (step 2). They are operated as so-called sub-nodes in *NVivo* (see list of nodes and sub-nodes in Appendix B). The statements are then sorted according to the indicators (step 3). The sampled statements are coded in French language (original language of the data).

With the statements identified in this way, the indicators initially used can be subjected to a critique. As a result, when statements cannot be subsumed under any indicator, indicators are supplemented or - if indicators cannot be proven in the statements - reformulated or deleted. This way, following inductive reasoning, unanticipated empirical findings as well as theoretical

insights are acquired and integrated as new indicators, thereby the analytical framework is successively modified (step 4). In the same way, the original set of key variables can now be revised with the changed indicators (step 5). In the end, the original framework is corrected by complementing or singling out key variables and indicators that do not match with the data sources to obtain parsimony (step 6). This approach suggested by Dubois & Gadde (2002) enables to work with a tight and evolving framework that reflects how the theoretical bases changes when it is confronted with the empirical reality.

In this context, the data set developed as follows. Of a total of 736 coded statements (271 from Parliamentary debates, 174 from nationwide consultations, 64 from Citizens' Convention for Climate, and 227 from Facebook), 383 statements (62 from Parliamentary debates, 136 from nationwide consultations, 23 from Citizens' Convention for Climate, and 162 from Facebook) remains at the end for the final content analysis.

3.5.2. *Patterns and causal links*

After having coded and collated all the data, the statements are translated with the program *DeepL Translator* and are afterwards carefully checked to increase accuracy and equivalence of the machine-based translation. The translation is done at this stage to ensure that ideas and language are kept homogeneously (Abfalter, Mueller-Seeger, & Raich, 2020).

Next, the relevant coded extracts are sorted into patterns. Patterns appear to be significant concepts that merge together components of perceptions derived from statements. A pattern is identified based on quantifiable measures i.e. when thematic similar perceptions are frequently mentioned, but also when they are of high relevance (Nowell, Norris, White, & Moules, 2017). Single perceptions may give the opportunity to connect perceptions expressed elsewhere, or they help to sharpen the understanding of the meaning of other statements resp. perceptions. They help to broaden already established perspectives or give reason to criticize as they reveal counter-perceptions.

Subsequently, the identified patterns and newly found key variables and indicators are investigated for causal relations. The starting point for the proof of dependencies in the empirical field is again the causal hypothesis derived in Chapter 2. *Figure 6* describes this process. The number in brackets indicate the steps that are taken.

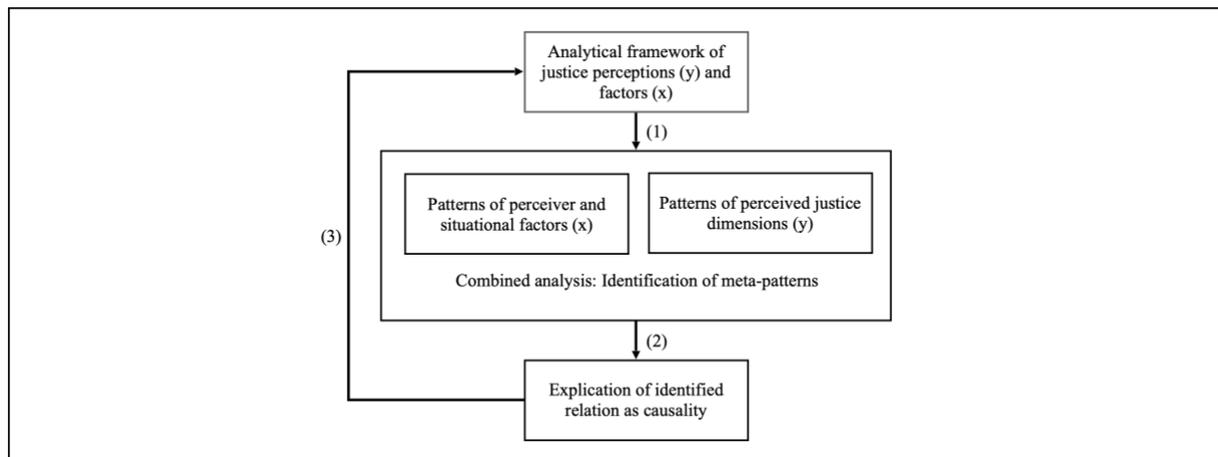


Figure 6. Identification of causal perspectives

The factors and justice dimensions thematically defined in the previous process are to be examined for a possible relationship. Plausible assumptions about a causal relationship are to be made with reference to all coding levels (i.e. key variables and indicators). As the data depicted single statements that are expressed in various contexts of the political process, it does not allow to analyze direct causal influences between variables. The statements are dominated by assertions of injustice and demands for justice on the one hand (y), or situational assessments and self-perceptions on the other side (x). This is due to the subject matter, but certainly also to the nature of the data sources studied. In this respect, the connections sought must be inferred from the thematic and linguistic context itself (step 1).

The coincidence of similar thematic focuses, which are classified either as factors or as justice dimensions, does not yet establish a scientifically reliable connection. The correlations assumed in the first step must therefore be examined to see whether the correlation can actually be explained as causalities. In the present case, nine partial dependencies (*'causal perspectives'*) could be identified. (step 2).

Last, the findings give the opportunity to confirm or question the underlying basic framework. Since there is no elaborated theory of justice perceptions and their foundation in the individual perception and of the situation in the field of climate policy, the identified causalities support or question the validity of the framework chosen at the beginning (step 3).

3.6. Ethical issues

Using Facebook posts and comments as data source raises several ethical issues (Franz et al., 2019). As Facebook users do not expect that their posts will be used as research data, they could feel that their privacy is violated. Therefore, participants' consent and approval by an Institutional Review Board (IRB) would be required to use data of the participants. Following

this approach, I would have potentially risked that consent could not be given and since Facebook is an ambiguous environment, I might have endangered my own safety when sharing my research intent. Instead, I sensitively handle the data and meet the following conditions that do not require IRB scrutinization (Kosinski, Matz, Gosling, Popov, & Stillwell, 2015; Schultze & Mason, 2012): by only using public data, I assume that this data was knowingly shared by the users. The data is anonymized after collection and no attempt is made to de-anonymize it, consequently information cannot be attributed to single users. Moreover, I do not interact or communicate with the users in the sample.

The data that has been submitted online to the nationwide consultations and the Citizens' Convention on Climate use open licenses which allow exhaustive reuse of anonymized data (Convention Citoyenne pour le Climat, 2020; Grand Débat National, 2019).

CHAPTER 4. CASE DESCRIPTION

This chapter describes the case of the YV which is characterized by citizens-government interactions and concerns how citizens perceive and respond to governmental decisions. It is a rather telling example of citizen action and provoking political reaction with the issue of perceived justice in the foreground.

Climate mitigation in France

As the host and chair of the COP21, France has been known for its leadership in brokering the first universally binding climate agreement (UNFCCC, 2015). Domestic momentum was provided by this leadership role for France's energy and climate legislation and paved the way for the adoption of the Energy Transition for Green Growth Act (*'Loi relative à la transition énergétique pour la croissance verte'* or *'LTECV'*). Established in 2015, the Energy Transition for Green Growth Act seeks to reduce GHG emissions by 40% by 2030 compared to 1990 levels. France has increasingly favored economic or market-based instruments such as indirect energy taxation for its strategy towards energy transition, so was carbon pricing incorporated into the LTECV (Hanafi, 2020)

Introduced at 7€/tCO₂, the carbon tax (*'Contribution Climat-Énergie'* or *'CCE'*) reached 44.6€/tCO₂ in 2018 and was set to increase to 86.2€/tCO₂ by 2022. The CCE is applied proportional to CO₂ emissions caused by the consumption of coal, natural gas and oil that was added to the corresponding fossil fuel taxes. The transport and building sector are mainly impacted by the CCE, while the agricultural sector was partially exempt. Fully exempt from the tax within the transport and building sector are air and maritime transport of passengers and goods. The carbon tax is of regressive nature like any consumption tax and mainly borne by households with a share of 58% of the total expected CCE revenue in 2019 (Gagnebin et al., 2019; Hanafi et al., 2019).

Carbon tax and mass protests

Yet, in late 2018 the ambitious French trajectory for the price of carbon came to a halt. The government announced a moratorium on the CO₂ price increase and froze the CCE at its 2018 level for the period 2019-2020 (Hanafi, 2020). This turning point in French climate policy was the direct reaction to the popular protests of the *Yellow Vests* which were triggered against the CCE.

Protests and *grèves* ('strikes') can be seen as integral part of French culture and the self-conception of democracy or of "politics as usual" (Wilson, 1994, p.23). Accordingly,

demonstrations against environmental taxation were not unexpected, when in 2014 the Brittany *Bonnets Rouges* ('red caps') successfully protested against the eco tax on heavy goods vehicles ('*écotaxe*'). Yet, distinguished by its scope, scale and persistence the Yellow Vests painted a protest picture that was novel in the history of political resistance in the Fifth French Republic. In fact, the YV account for the longest series of mass protests in French history, having lasted from November 2018 until March 2020 (Lem, 2020).

What initially led to the YV protests was an online petition to lower fuel prices by 33-year-old *Priscilla Ludosky* in May 2018 directed at the French authorities that went viral over the course of several months. In this petition Ludosky condemned the proposed fuel price increase and addressed the struggles and burdens that especially poorest and low-income households located in peripheral regions that dependent on diesel use in their mobility would face as a consequence of this hike. With one of the highest rates of gasoline vehicles ownership in Europe, France remains highly dependent on diesel vehicles (OECD, 2016). Praised for its cheaper costs and higher performance in comparison to petrol cars for the longest time, diesel cars now constitute the French fleet for the most part and are especially popular in the low-income strata. Compared to former climate surcharges, the situation in October 2018 has reached a critical point when diesel prices reached peak through growing oil prices on the world market and with that it drove fuel prices up higher which intensified public discontent (Hivert, 2013; Martin & Islar, 2020).

From 17th November 2018 on decentrally organized in social media networks, especially in local Facebook groups, collective action was carried out in three forms: so-called *Acts* ('*actes*') which involved weekly Saturday marches along city streets, the occupation of roundabouts in peripheries of cities and towns to disrupt the traffic and with that the commodity transport of as well as other acts of civil disobedience e.g. the attempt to enter the presidential Elysée Palace (Chapuis, 2019).

Who are the Yellow Vests?

Moreover, while the *Bonnets Rouges* protestors were mainly farmers who were impacted by the *écotaxe* because of their dependency on heavy good vehicles for their profession (Dauteuil, Hanafi, & Jousseume, 2020), the YV movement broke the pattern of a somewhat homogenous protest group and could not be defined as a single sociological category. Characterized by heterogeneous constituencies, they encompass members of the popular classes both working and non-working citizens. The working mainly hold positions at the lower end of the

occupational hierarchy earning average modest incomes or pursue typical white-collar jobs (Lem, 2020)

Despite the heterogeneity in group composition, members have in common that it was their first experience participating in popular protests and that they share a collective identity as peripheral in the economic, sociopolitical and geographic landscape of France (Lem, 2020). Wearing yellow fluorescent vests became a meaningful symbol for the protestors that reveals the perceived fracture in France and of those feeling left out to suddenly becoming visible. In terms of the movement's collective identity, there is no commitment to any ideological or political philosophy, instead horizontalism is preferred over any hierarchy. While the initial motivation to protest concerned the planned fuel price increase, the movement formulated a charter containing 42 demands that are as heterogeneous as their members reaching from lowering all taxes to reintroducing the former wealth tax (*'ISF'*). Nonetheless, these claims seem to all evolve around economic injustices, especially experienced by those who consider themselves as poor and marginalized (Lem, 2020).

Governmental responses to the Yellow Vests

With growing intensity of riots, the government responded with excessive use of police force such as the use of rubber bullet guns to control crowds. Curtailing the protests with police brutality stressed the relation to authorities even further, as the police was perceived as serving the illegitimate government (Jetten et al., 2020). Among the expressed injustices concerning distributive effects of the regressive tax on households' purchasing power as the key driver of the protestors' discontent, dramatically eroding distrust in the government fortified by police repression also played a crucial role (Douenne & Fabre, 2020b).

Nationwide consultations (*'Le Grand Débat National'*)

In December 2018, after 12 weeks of protests and broad public support for the protestors' demands, the government under pressure responded accordingly. As first measure, the government announced to transitionally postpone the tax increase on diesel and fuel and made immediate concessions especially concerning minimum wages and pension levels (Kempin & Tokarski, 2019). Secondly, the following month nationwide consultations (*'Le Grand Débat National'*) between January and March 2019 were declared, in which Macron would personally hold town hall meetings across France and where citizens could voice their concerns, opinions and policy proposals on ecological transition, taxes, democracy and state structure. Designed as participatory democratic experiment, the consultations objective was to "channel political emotions towards a discursive resolution of the crisis" (Dobler, 2019, p. 2) through local public

debates, registries of grievances (*'cahier de doléances'*), neighborhood stands, online questionnaires and regional citizens' conferences in metropolitan France.

The YV contested the democratic legitimacy of the consultations and organized their own debate called *Le Vrai Débat* ('Real Debate'). They criticized the consultations for its perceived deliberative shortcomings. These include the opinions collected not being representative of the public as mainly shared by respondents from higher social backgrounds and urban areas, the hyper-mediatized focus on Macron who participated during the debates and thus occulting the collective word of the public, and last the formulation of the online survey as excessively binary (Bénis, 2019). Macron was also accused of instrumentalizing the consultations as campaign platform for the EU election in May 2019 (Kempin & Tokarski, 2019).

Citizens' Convention on Climate (*'Convention Citoyenne pour le Climat'*)

In October 2019, six months after the end of the nationwide consultations, the second democratic experiment followed which was the third governmental response to the YV and pursued the request for an increased citizens' engagement in the political process (Eymard, 2020). The Citizens' Convention on Climate (*'Convention Citoyenne pour le Climat'* or *'CCC'*) was established to give 150 randomly selected citizens the chance to assist in developing a set of policies for France to pursue its national climate goals without compromising social justice. Working groups tackled five themes *'consuming'*, *'travelling'*, *'housing'*, *'eating'*, *'producing and working'* to lay groundwork for setting the domestic climate agenda during seven weekend-sessions from October 2019 to June 2020.

While the number of YV protestors has shrunk significantly since its first backlash and with the end of the *Citizens' Convention on Climate*, to this day, at the time of writing, members YV are occasionally in the streets to rally and share their discontent (Vidalon, 2021).

CHAPTER 5. RESULTS 1: IDENTIFICATION OF PATTERNS

After the first confrontation with the empirical reality following abductive reasoning, this chapter describes the patterns of the justice perceptions of climate policy (5.1.) and the perceiver and situational factors (5.2.) that are identified from the statements. The indicators and variables that are inductively found and also those that are singled out as they could not be found in the empirics are described at the beginning of each subsection. *Table 5* explains the abbreviations to reference the sources of the statements obtained from the empirical data that are used in the present chapter.

Table 5. Abbreviations of references

Abbreviation	Description of abbreviation
PD/2017	Parliamentary debate on 21 October 2017
PD/T1	Parliamentary debates at time span 1
Fb/T1	Facebook comments at time span 1, compromising page a, page b, and page c
Fb/T2	Facebook comments at time span 2, compromising page a, page b, and page c
Fb/T3	Facebook comments at time span 3, compromising page a, page b, and page c
NC/T2	Contributions to nationwide consultations at time span 2
CCC/T3	Contributions to the Citizens' Convention on Climate at time span 3

5.1. Justice perceptions of climate policy

This section presents the findings for the distributive, procedural and recognition justice perceptions of climate policy that are revealed by the statements of individuals. The first research sub-question posed in Chapter 1: *Of which significance are distributional effects, procedural and recognitional aspects within the justice perceptions of climate policy in the case of the Yellow Vests movement?* is addressed. Overall, all three justice dimensions are identified in the perceptions of climate policy. Distributional effects are most frequently observed, followed by perceived procedural aspects and last perceived recognitional aspects.

5.1.1. Distributive justice

The main finding on the perceptions of distributive justice suggests that there is no uniform model within the YV concerning the distribution of benefits and burdens. Perceptions about distributional effects appear to be fairly inconsistent throughout governmental and public stated data (*Table 6*). All deductively derived key variables and indicators could be confirmed in the empirics and only the *distribution of policy burdens according to the pollution level* is inductively found.

Table 6. Patterns of distributional effects

Key variable	Indicator	Pattern
Allocation of policy burdens	Distribution of policy burdens between firms and households	Adaptability to policy
	Distribution of policy burdens between households	Budgetary overload Dependence on inadequate infrastructure and public transport Existential threat
	Distribution of policy burdens among countries	Tax distortion of national standards
	Distribution of policy burdens between sectors	Exemptions given to some sectors
	Distribution of policy burdens according to the pollution level	Intensity-related distribution Effect-related distribution
Allocation of policy benefits	Redistribution of tax revenue	Investments for different uses

5.1.1.1. Allocation of policy burdens

In the perceptions of *allocation of policy burdens* a variety of recipient groups are thematized, including low-income, poorest, and rural households, as well as countries and sectors.

Distribution of policy burdens between firms and households

Adaptability to policy: The distribution of policy burdens stronger impacts households than firms because their ability to adapt themselves to the policy is lower (PD/2017/1; PD/2017/2; PD/2017/3; Fb/T1/1; Fb/T1/2; Fb/T1/3; PD/T1/1; PD/T1/2; NC/T2/1; NC/T2/2; NC/T2/3; CCC/T3/1). When referred to policy burdens unevenly distributed between firms and households, concerns about the uneven taxation of fuel in private and public transport are predominately expressed. For instance individuals express to "tax air transport in the same proportions as gasoline" (NC/T2/2) or "Taxing kerosene and lowering charges on diesel taxes in France is the first step in the short term." (Fb/T2/2). The carbon tax hike is criticized to "mainly burden households [...] while large companies are favored" (PD/2017/2) which would constitute tax niches that in turn will "lead to an increase in the household energy budget, which is a form of injustice to them" (PD/2017/1). One individual advocates for an equal treatment regarding the adjustment phase of environmental taxes of firms and households "We gave 3

years to the farmers I think to eliminate Glyphosate. So let's do the same thing for the ecological transition. Let's start giving aid to modify the car fleet or find alternatives.“ (Fb/T1/3). Fiscal justice is contrarily interpreted as to *“involve differentiated treatment according to the situation of the companies”* (PD/T1/1) and hence allowing exemptions to certain industrial sectors to correspond reduced policy adaptability.

Distribution of policy burdens between households

Regarding the perceived uneven distribution of policy burdens between households, individuals shared concerns about the impacts of carbon pricing and more specifically about the regressive nature of the carbon tax itself. Concerns about impacts on low-income, rural and poor households are felt the strongest.

Budgetary overload: The distribution of policy burdens stronger impacts low-income households because the burden means budgetary overload for them (PD/2017/4; PD/2017/5; PD/2017/6; PD/2017/18; PD/T1/7; Fb/T1/56; CCC/T3/19). Several individuals mention that the regressive consequences displayed by the carbon tax are argued to impose stronger burdens onto low-income households, examples include *“the financial impact falls mainly...on low- and middle-class families with schoolchildren using public transport”* (CCC/T3/19) and *“they place the bulk of the burden on households, especially the poorest”* (PD/2017/5). Similarly, another individual reveals feeling *“knocked out by a surplus of taxes”* would not allow *“to have enough to feed our kids”* (Fb/T1/56). Consequently, the ecological transition is perceived as reserved for high-income households that can e.g. benefit from expensive sustainable technological solutions (PD/2017/18). One government representative emphasizes that low-income households are willing to accept environmental challenges but *“they simply do not have the means”* (PD/2017/4), therefore *“the State must make this energy transition everyone's business”* (PD/2017/4).

Dependence on inadequate infrastructure and public transport: The distribution of policy burdens stronger impacts rural households because they are dependent on private transport and the inadequate infrastructure (PD/T1/2; PD/2017/12; PD/2017/13; PD/2017/14; PD/2017/15; PD/2017/16; PD/2017/17; PD/2017/18; PD/2017/19; PD/2017/20; Fb/T1/21; PD/T1/8; NC/T2/34; NC/T2/35; CCC/T3/20). Among the perceived consequences of the allocation of policy burdens, most references refer to impacts on rural households. There is a consensus that the carbon tax would especially discriminate those who *“have to use their vehicle for their daily trips, and often have no other solution”* (PD/2017/19). Consequently, it *“targets a category of the population and establishes a real territorial distortion”*

(PD/2017/16). The current inadequate transport opportunities in rural areas are highlighted “*even when there is public transportation, the schedules are not adapted to people working in shifts*“ (PD/2017/13). Additionally, it is argued that rural households do not receive the same benefits as would urban households and are therefore stronger impacted by the policy burden, e.g. electric cars are described as “*totally unsuitable and for those who live in the countryside it's impossible to install a hitch on an electric car, it's an almost indispensable accessory*“ (Fb/T1/21). In the eyes of many creating equal access to public transportation for all citizens is seen imperative to defending a fairer share of the policy burden for rural households.

Existential threat: *The distribution of policy burdens impacts poor households stronger because it is existentially threatening for them* (PD/2017/21; Fb/T1/22; Fb/T2/1; NC/T2/36; NC/T2/37; NC/T2/38; CCC/T3/21). A number of individuals is generally concerned about the regressive incidence of the carbon tax strongly impacting the poorest households and those in need. Therefore, some point out that they should receive social aids, which could be financed e.g. via the reintroduction of the solidarity tax on wealth (*ISF*) that was abolished in 2017 (Fb/T1/22) or eco-consumption vouchers (CCC/T3/21). It is emphasized to reduce the tax incidence of recipients with a lower ability to pay by introducing a progressive ecological tax “*that does not penalize the poorest*“ (NC/T2/36).

Distribution of policy burdens among countries

Tax distortion of national standards: *In the distribution of policy burdens the national tax distortion of product prices should be considered* (Fb/T1/5; Fb/T1/6; Fb/T1/7; Fb/T1/8; Fb/T1/9; Fb/T1/10; NC/T2/4; NC/T2/5; NC/T2/6; NC/T2/7; NC/T2/8; CCC/T3/3; CCC/T3/4; CCC/T3/5). Overall, what contributes to the perceived injustice of policy burdens distributed among countries, is the fact that other European countries levy lower carbon tax rates than France. Specifically, the distribution of policy burdens among countries is perceived in two different cases.

In the first case, a number of individuals plead to impose higher taxes on imported products that do not comply with French standards as they seemingly “*do not respect environmental standards*“ (NC/T2/7) or that “*do not conform to sustainable agriculture (Brazilian soy, palm oil...)*“ (CCC/T3/5). Hereby products should arguably be excluded that are cultivated “*in a natural way while respecting the fauna and flora*“ (Fb/T1/7). Following this reasoning, it is commonly perceived as unjust that countries can export their polluting products without paying environmental taxes in the country of production, hence solutions to “*decrease global warming...at the world scale*“ (Fb/T1/6) or to “*tax carbon at the source*“ (CCC/T3/3) are

avored so that the policy burden can be more evenly distributed among countries. Through higher taxation of imported products, individuals explicitly express to expect production patterns to change by "*imposing French standards on other pesticide members for example*" (NC/T2/8) and "*to export our social and environmental standards to the taxed countries*" (CCC/T3/4).

In the second case, locally produced goods are deemed to receive policy benefits, for instance to "*favor local products by lowering taxes*" (Fb/T1/5) or "*decrease the VAT of the French or European productions*" (Fb/T1/6) to allow a more even global distribution. Moreover, in this regard countries are argued to be supported through financial incentives by France "*so that they move immediately to the ecological era without going through the unrestrained polluting industry era*" (NC/T2/5).

Distribution of policy burdens between sectors

Exemptions given to some sectors: The distribution of policy exemptions to economic sectors is not uniformly perceived. Considering the perceived distribution of policy burdens between sectors, individuals reveal their dissatisfaction about which sectors in their view are unjustly given exemptions. In general, most perceived distributional effects concern this pattern. Despite that certain sectors are frequently mentioned (including aviation and shipping sector, the transport and mobility sector, the leisure industry, the agriculture sector, the fossil fuel industry, the energy sector, the financial sector, the construction sector and the 'polluting' industry). Based on the plethora of different sectors mentioned, individuals perceive this effect quite heterogeneously, also illustrated by the varying degree in the perceived (un)deservingness of receiving specific policy burdens or benefits.

Most frequently exemptions and privileges concern the aviation sector (PD/2017/7; PD/2017/8; PD/2017/9; T1/Fb/13; Fb/T1/14; T1/Fb/15; T1/Fb/16; T3/CCC/6; T3/CCC/7): some favor to impose a tax on domestic flights (T1/Fb/13; T3/CCC/7; PD/2017/7; PD/2017/9), while others suggest to tax aviation or kerosene in general (Fb/T1/14; T1/Fb/15; T1/Fb/16; T3/CCC/6). The maritime sector is also criticized for receiving tax privileges (T1/Fb/14; T1/Fb/15; T1/Fb/16; PD/2017/7). One government representative questions the effectiveness of the carbon tax when the aviation sector would be exempt as "*the effect on the planet of this increase should therefore be almost nil, or even counterproductive*" (PD/2017/8). Consequently, in order for the carbon tax to be effective, any other polluters would need to reduce their impact stronger.

The exemptions given to the transport and individual mobility sector are abundantly criticized (PD/2017/5; PD/2017/6; PD/T1/4; Fb/T1/17; NC/T2/9; NC/T2/10; NC/T2/11; NC/T2/12; NC/T2/14; NC/T2/15; NC/T2/16; CCC/T3/8), especially trucking by heavy good vehicles in consideration of “*the degradation of the road network, the nuisance to the residents of the roads*” (NC/T2/12), long distance travel (NC/T2/11) and road congestion (Fb/T1/17). Therefore, it is proposed to “*reinstate the Ecotax gantries on trucks*” (NC/T2/10) or to urgently introduce “*a tax or vignette*” (CCC/T3/8) or generally to “*stop all trucking for freight transport*” (NC/T2/14). Conversely, it is suggested “*to increase the fuel tax but not for transportation professionals*” (NC/T2/15). Concerning private transportation apart from one person who supports to “*increase the fuel price...and to promote low-polluting or non-polluting travel*” (NC/T2/16), several individuals refer to the unevenly distributed policy exemptions given to the private transport sector. Specifically, sectoral discrimination is perceived between different motor fuels (PD/T1/4; PD/2017/5; PD/2017/6) e.g. “*Why when buying a new vehicle, the tax on diesel vehicles is very significantly lower than the tax on gasoline vehicles*” (NC/T2/9). Moreover, sectoral balanced policies are described as “*only way to achieve the energy transition*” (PD/2017/6), as giving exemptions to certain sectors would result in a loss of state revenue, an artificial raise of certain sectors that are not environmentally friendly and impose the burden on especially low-income households.

Some feel concern about exemptions given to the leisure sector that account in their opinion for a high carbon footprint by contemplating the need to change mentalities towards low-carbon behavior (NC/T2/17; CCC/T3/9). This includes applying higher taxes to sports vehicles “*to disincentive to purchase them*” (NC/T2/17) and “*to ban all public subsidies for motor sports races*” as necessary means “*to change our mentalities and reduce our energy consumption and especially our oil consumption*” (CCC/T3/9).

Many suggest to impose higher policy burdens onto agricultural commodities that are not ethically or sustainably produced (Fb/T1/18; CCC/T3/10; CCC/T3/11; NC/T2/18; NC/T2/19; CCC/T3/10; CCC/T3/11). Hence, organically manufactured and plant products are allocated policy benefits through lower taxation (Fb/T1/18; CCC/T3/10), while higher taxes should be imposed on animal products (CCC/T3/10; CCC/T3/11). With the intention of reducing non-virtuous practices, individuals indicate to penalize the use of pesticides (NC/T2/18) and growing water-intensive crops (NC/T2/19) through higher taxation.

The policy benefits given to the fossil fuel industry are perceived as unjust by many (PD/T1/5; Fb/T1/20; NC/T2/21; NC/T2/22; CCC/T3/12). Thus “*ending subsidies and tax breaks*” (CCC/T3/12) are proposed, primarily to oil companies (NC/T2/21; NC/T2/22). Indirect

policy benefits like the tax-free Christmas bonus are criticized to only benefit the most favored sectors “*oil, banks, insurance*“ (PD/T1/5).

Many individuals share the view that polluting industries with worldwide the highest carbon emissions should receive higher policy burdens through higher carbon taxation (PD/2017/10; Fb/T1/20; NC/T2/23; NC/T2/24; NC/T2/25; NC/T2/26; CCC/T3/13). Similarly, one government representative stresses to “*truly apply the polluter-pays principle*“, as “*the economic interests of a few companies, whose record profits have a huge impact on the environment, must not be allowed to prevail.*“ (PD/2017/10). It is also argued that the sectors with the highest greenhouse gas emissions deserve specific consideration in policy to reduce pollution at the source and to “*free our world from fossil fuels*“ (CCC/T3/13). Moreover, concern is expressed over the reinvestments of banks and insurance companies in polluting industries (NC/T2/26).

Concerning the distribution of policy burdens to the energy sector (PD/2017/11; NC/T2/27; NC/T2, 28) wind power production is argued to be only beneficial to operators and detriment to the customers, hence subsidies should no longer be granted (NC/T2, 28). In view of the current situation⁶, one person discusses that nuclear projects should not be given policy benefits (NC/T2/27).

Exemptions to projects of the financial sector per se are perceived as unjust (CCC/T3/14; Fb/T1/22) as they are described as ecocidal i.e. the undifferentiated financial orientation of these projects is criticized for causing detrimental environmental effects. Hence, they should be made more transparent and be penalized (CCC/T3/14). On a more general note, one person contemplates the justice implications of taxing capital instead of labor in order “*to allow carbon tax to exclusively finance the end of fossil fuel dependence*“ (Fb/T1/22).

Similar to the agricultural sector, it is mentioned that exemptions should be given to smaller firms in the construction sector (PD/T1/6; NC, T2, 29). Opposed to major firms that “*could cushion the shock [...] in taking its share of the energy transition*“ (PD/T1/6), smaller firms could be penalized when an entire industry is being destabilized overnight.

⁶ The term ‘current situation‘ refers to the EPR (Evolutionary Power Reactor) Flamanville, a nuclear reactor that is under construction since 2007. Due to ever emerging safety deficiencies over the years, its costs are estimated 5,6 times the original. Only through subsidies, the nuclear company has been prevented from going bankrupt (Banholzer, 2020).

Distribution of policy burdens according to pollution level

Intensity-related distribution: Policy burdens should be distributed according to the intensity of environmentally harmful activities (NC/T2/30; CCC/T3/15; CCC/T3/16). Intensity-related distributional effects concern the gradual price increase according to the consumption level e.g. the implementation of a tax on diesel (NC/T2/30) or a surtax on a maximum heating level (CCC/T3/15).

Effect-related distribution: Policy burdens should be distributed according to the pollution effect (Fb/T1/26; NC/T2/31; NC/T2/32; NC/T2/33; CCC/T3/17; CCC/T3/18). Effect-related distributional effects refer to the idea to regulate someone's behavior based on his or her carbon footprint. While many perceive this as just measure to stimulate individual behavioral change by e.g. making it compulsory "to display the carbon impact of our individual energy consumption" (CCC/T3/18) or "we must calculate it but above all respect it. The non-exceedance must be controlled by a form of tax from the Ministry of Ecology" (Fb/T1/26), one other person states as well to target this measure at the industry (NC/T2/33) and another would integrate a carbon footprint reduction objectives into all public orders (CCC/T3/17).

5.1.1.2. Allocation of policy benefits

In the perceptions of the allocation of policy benefits the *redistribution of tax revenue* is addressed.

Redistribution of tax revenue

Investments for different uses: The redistribution of tax revenue is not uniformly perceived. The motive to implement environmental taxes is perceived as only to increase government revenues. Four groups of the preferred use of tax revenue are distinguished, including the industry, infrastructure, research and environmental projects. Similar to the findings for the perceived distribution of policy burdens between sectors, individuals' perceptions of the redistribution of tax revenue show great variety.

For the redistribution of revenue to economic sectors, the most preferred use is the agricultural sector (PD/T1/9; PD/T1/10; Fb/T1/23; Fb/T1/24; NC/T2/40; NC/T2/41; NC/T2/43; NC/T2/53; CCC/T3/10; CCC/T3/22; CCC/T3/23). Supporting "environmentally friendly and locally produced agricultural products" (NC/T2/41) as well as "helping and encouraging farmers to go organic" (NC/T2/53) is commonly viewed as just in order to cut greenhouse gas emissions. Moreover, the fact that financial aids of the CAP ('Common Agricultural Policy') only account for big grain farmers is found to be discriminatory of small

farmers. Hence, the aid should be distributed “*according to the number of workers and carbon emission instead of the surface area*” (NC/T2/40). Several stress that an ambitious policy must address the social injustices that farmers would face in the envisaged transition to a low carbon future by stating that farmers deserve living “*under good conditions*” (CCC/T3/22) and “*as well as possible*” (PD/T1/10). This point is emphasized by another person who describes that simultaneous measures that are closely linked in the areas of ecological transition are indispensable as “*the climate transition will be socially equitable, or it will not happen*” (CCC/T3/23). One individual would also redistribute more revenue to the agricultural sector by “*lowering the price of agricultural fuels*” which could send a positive message to farmers, while also “*giving back purchasing power to motorists*” (PD/T1/9).

Generally, several argue that an increase in the carbon tax should go hand in hand with a reduction in VAT or other taxes on gas and electricity (Fb/T1/23; Fb/T1/24; CCC/T3/23), as it feels as though “*the most heavily taxed households in the world*” would uncontrollably be imposed more taxes (Fb/T1/24).

Another often preferred use of revenue is to improve the public transportation infrastructure (PD/2017/22; Fb/T1/25; Fb/T1/26; NC/T2/43; NC/T2/44; NC/T2/45; NC/T2/46; NC/T2/47; NC/T2/48; NC/T2/49; NC/T2/50; NC/T2/51; NC/T2/52; CCC/T3/24), such as “*tax to finance more public and ecological transportation*” (NC/T2/44) where there is “*not enough profitability to leave it to the market alone*” (NC/T2/52). Specifically, to revise the public transport policy in rural areas would be required, since public transport opportunities would be poor and could not compete with private transport in smaller cities and in the countryside (NC/T2/44; NC/T2/46; NC/T2/47; Fb/T1/25). Concerning what specific infrastructure improvements would be preferred, a few mentioned to invest in the National rail network (PD/2017/22) or modern “*less polluting*” modes of public transport (CCC/T3/24). Interestingly, one person seems to be very open to further increase the carbon tax, as long as the revenue would be used to invest only sustainable transportation options (NC/T2/45).

Many view that the tax revenue should be redistributed to citizens (PD/T1/11; PD/T1/12; PD/T1/13; Fb/T1/27), as it is currently perceived to “*simply feed the state’s budget...and was not going to decarbonize the planet*” (PD/T1/12). Which in turn would mean that it would not be allocated to a both effective and ecologically just policy (PD/T1/13). Adding to this, a government representative points to the discrepancy between taxing carbon for citizens without paying refunds but exempting the industry when talking “*about popular ecology*” (PD/T1/11).

Funding research is identified as further preferred use of revenue (PD/2017/23; Fb/T1/29; NC/T2/53; CCC/T3/25), reaching from specific investments in “*research for a more respectful*

agriculture of tomorrow“ (CCC/T3/25) over encouraging innovation in the automotive industry (PD/2017/23) to more general investments in research that would allow “*a true ecological transition*“ (Fb/T1/29; NC/T2/53).

Funding environmental projects refers to the funding of projects that reduce carbon emissions. It is among the most preferred use of revenues (Fb/T1/29; NC/T2/54; NC/T2/55; NC/T2/56; NC/T2/57; CCC/T3/26; CCC/T3/27; CCC/T3/28; CCC/T3/29). While it is suggested to “*visibly allocate taxes on oil consumption to climate investment*“ (NC/T2/54), many others support to invest in the energy transition by e.g. massively funding renewable energies (NC/T2/55), raising awareness on energy sobriety (CCC/T3/28), but as well in contrast to the National Law on Energy Transition for Green Growth (*‘LTECV’*) to increase the share of nuclear energy in the electricity production (CCC/T3/29). Several feel that funding should be used for the protection of land by creating “*protected territorial sanctuaries...where the ecological footprint will be really strong*“ (NC/T2/56) or building green infrastructure that “*enables large-scale regeneration of species*“ (NC/T2/57). One considers the possibility to impose environmental regulation to private land to ensure resource preservation (CCC/T3/26).

5.1.2. Procedural justice

The analysis of the perceptions of procedural justice suggests that economic institutions are broadly perceived as dominating the policy process. Groups with disproportionate wealth and privileges i.e. elites are viewed as overrepresented in decision-making processes, while ordinary citizens are viewed as underrepresented either as their involvement is seen only partially inclusive or the extent to which they are able to participate in the political process is seen as too marginal (Table 7). Inductively derived are the indicators *representation of economic institutions* and *representation of social groups* that fall under the key variable *inclusiveness*.

Table 7. Patterns of perceived procedural aspects

Key variable	Indicator	Pattern
Inclusiveness	Inclusion of relevant stakeholders	Involvement of citizens Multi-actor involvement Multi-level involvement Environmental organization International organization
	Representation of economic institutions	Dominance of economic criteria Lobbyism
	Representation of social groups	Elites
Participation	Access to decision-making process	Selection of participants in decision-making process Provision of information about climate policy Transparency in decision-making process
	Citizens' engagement in decision-making process	Referendum Citizens' assembly

5.1.2.1. Inclusiveness

In the perceptions mentioning *inclusiveness* *inclusion of relevant stakeholders*, *representation of economic institutions* and *representation of social groups* are most dominant in terms of frequency.

Inclusion of relevant stakeholders

Involvement of citizens: *The involvement and the representation of all citizens is perceived as insufficient in decision-making processes* (Fb/T1/30; Fb/T3/1; NC/T2/58; CCC/T3/30; CCC/T3/31). It is commonly perceived that citizens generally do not feel included in decision-

making processes. This concerns even the newly established approaches: two individuals explicitly refer to the nationwide consultations as being exclusive by stating that “*the guests will be sorted out*“ (Fb/T3/1) and that a “*citizen debate does not exist in this government*“ (Fb/T3/1). It is evident that some feel that there is a lack in the “*representation of the society as a whole*“ (CCC/T3/31) and that generally “*the representatives of the people have been unable to respond to the demands of the people*“ (Fb/T1/30). Moreover, policies are argued to not address all citizens equally (NC/T2/58). All in all, the involvement of all citizens is perceived as essential in the transition to a low-carbon future since “*ecology must be fair and popular*“ (CCC/T3/30).

Multi-actor involvement: *A broad set of actors should be involved in decision-making processes* (PD/T1/14; PD/T1/15; Fb/T1/31; NC/T2/58; NC/T2/59). In many cases, individuals recognize the need to involve a broad set of actors for the governance of climate change dealing with complex societal issues e.g. “*Improvement in the ecological field can only be achieved by involving businesses, institutions, and by incentives for all citizens.*“ (NC/T2/58). Generally, “*participatory democracy*“ (Fb/T1/31) is regarded as the next necessary step in the evolvement of democracy. In multi-actor arrangements more involvement of the civil society is viewed as essential so that citizens’ perspectives could be better integrated into political processes, therefore the nationwide consultations “*must take place as close to the ground as possible, with all the actors: the yellow vests, of course, but not only*“ (PD/T1/15). The self-organizing capacity of associations as civil society actors is emphasized and thus they should be given the possibility “*to come and defend their position in the European Parliament*“ (NC/T2/59).

Multi-level involvement: *Multiple governmental levels should be involved in decision-making processes* (Fb/T1/31; Fb/T1/32; NC/T2/59; NC/T2/60; NC/T2/61; NC/T2/62; NC/T2/63; NC/T2/64; NC/T2/65; NC/T2/66; Fb/T3/2; CCC/T3/32). Concerning the inclusion of relevant stakeholders, many individuals stress the need to establish more multi-level arrangements in climate governance. Stronger involvement of local, European and international actors is viewed as paramount. Local governmental levels are requested to play a more important role in transmitting local realities and necessities to “*really enter into a process of ecological transition*“ (NC/T2/61). Moreover, individuals wish to assign them more political power e.g. in the implementation of policies (NC/T2/62), so that decisions that are made at the state level “*do not lose their meaning [...] when they get to the local level*“ (CCC/T3/32). On the other hand “*seeking European responses*“ (NC, T2, 64) as well as “*an ambitious European environmental policy*“ (NC/T2/63) are stressed. One citizen even proposes to develop an incentive-based regulatory framework that would “*encourage social ownership of changes by*

relocating decisions and validating them collectively“ (CCC/T3/32). This way, citizens’ influence could also be enhanced at the local level in direct dialogue to candidates (Fb/T3/2).

Environmental organization: *The creation of a central organization politically responsible for climate mitigation is required* (NC/T2/67; NC/T2/68; CCC/T3/33; CCC/T3/34). Organizations to plan and control political action at various levels and sectors is demanded. This includes *“an ecological transition commission for all companies”* (CCC/T3/33), *“a great independent European environment council, with the attributes of an executive and judicial legislative power”* (NC/T2/68) and *“an environmental cell for each ministry”* to reinforce ecological transversality (NC/T2/67). Furthermore, the Citizens’ Convention on Climate is praised for marking *“France’s entry into direct democracy”* (CCC/T3/34) and its automatic renewal is welcomed as continuous structure whose proposals are perceived as great hope to form an all-encompassing representation of societal issues.

International organization: *International organizations should play a more important role in steering decisions in international climate governance* (NC/T2/69; NC/T2/69; NC/T2/70; CCC/T3/35). Other citizens see international organizations as key players in the integration of international climate policies. Given the necessity of worldwide action to deal with worldwide climate change *“the Citizens’ Convention should not be restricted to the narrow borders of our country”* (CCC/T3/35). Stronger leadership and enforcement of binding targets on states to fight against pollution is expected from organizations like the UN (NC/T2/70). The WTO is argued to be a relevant diplomatic body to intervene at international climate conferences (NC/T2/69).

Representation of economic institutions

Dominance of economic criteria: *The consideration of economic criteria in climate policy is believed to hamper or foster the sustainability transition* (Fb/T1/33; Fb/T2/2; NC/T2/71; NC/T2/72; NC/T2/73; NC/T2/74; NC/T2/75; NC/T2/76; CCC/T3/36). Generally, perceptions about trust and distrust in markets to reduce carbon emissions could be observed. Individuals who distrust the market, criticize the dominance of economic criteria and profit orientation in climate policy. For instance, it is stated that *“we must stop permanently associating money (aid, bonuses, taxes) and ecology, even if ecology has a cost...ecology is treated in terms of financial profits by those who work on the subject”* (NC/T2/76). On the other hand, a few citizens show trust in markets by pointing out that *“the ecological transition can very well generate growth and employment if it is well thought out”* (NC/T2/73) or by creating a social financial

contribution, similar to the former solidarity tax on wealth (*'ISF'*) that could be invested in renewable energies or start-ups of new technologies (NC/T2/71).

Lobbyism: *The influence of lobbies is perceived as too dominant* (Fb/T1/34; Fb/T1/35; Fb/T2/3; NC/T2/77; NC/T2/78; NC/T2/79; NC/T2/80; NC/T2/81; NC/T2/82; NC/T2/83; NC/T2/84; NC/T2/85; NC/T2/86; CCC/T3/36; CCC/T3/37; CCC/T3/38). Lobbyism in climate policy is broadly disapproved, e.g. some note that a true energy transition must be “*independent of lobbies*” (NC/T2/7) or that an ecological tax system should be applied “*without giving in to lobbies*” (NC/T2/78). Moreover, many feel that the state needed to play a stronger role in regulating the activity of lobbies especially of multinational companies, fertilizer, pesticide, meat, fossil fuel, car and finance industries. To “*effectively fight*” (NC/T2/80), “*guarantee an outlaw status*” (NC/T2/81) and “*prohibit*” (CCC/T3/37) are the most commonly expressed ways to limit lobby influence. One citizen highlights the fact that climate negotiations such as the COP’s are being hijacked by the fossil fuel industry since they are sponsored by “*multinationals whose business is the first cause of GHG emissions*” (NC/T2/83).

Representation of social groups

Elites: *Elites are perceived as overrepresented in the political process* (Fb/T1/36; Fb/T1/37; Fb/T1/38; Fb/T2/4; Fb/T2/5; NC/T2/87; Fb/T3/3). Another procedural aspect that is perceived concerns the overrepresentation of elites in decision-making processes. Many feel that decisions are made by “*a small handful of individuals*” (NC/T2/87) or by “*a 'caste' of senior civil servants more than ever undermined by the entre-soi*” (Fb/T2/4). Consequently, this would lead to “*conflicts of interests*” (Fb/T2/4) and an unequal representation of interests as such. Others stress that elitist leaders would therefore “*favor the very rich*” (Fb/T1/36) “*serve a minority and partisan politics that benefit only the richest*” (Fb/T2/5), which would cause injustices and widen the social fracture (Fb/T1/36).

5.1.2.2. Participation

In the statements referring to participation, *access to decision-making process* and *citizens' engagement in decision-making process* are mentioned.

Access to decision-making process

Selection of participants in decision-making process: *Decision-making processes are perceived as inaccessible by some individuals* (Fb/T1/39; Fb/T1/40; Fb/T1/41; Fb/T1/42). Access to decision-making processes is a prerequisite to effective political participation. In several cases decision-making processes are perceived as inaccessible. The nationwide

consultations are criticized for being inaccessible as they are directed by the government, so citizens did not feel to have “*the right to discuss the subjects that make people angry*“ (Fb/T1/39). Among the protestors, some point out that the government “refuses to listen to the movement“ (Fb/T1/41) and that “*an abusive representation of the movement*“ (Fb/T1/42) would be carried out by the government, so they could strategically exclude them from decision-making processes.

Provision of information about climate policy: *The provision of information about climate policy especially about the redistributive purposes of tax revenue is seen as insufficient* (Fb/T1/43; Fb/T1/44; Fb/T1/45). The provision of information about climate policy is found as insufficient by many which intensified the perception of the procedure as unjust. Two citizens have similar feelings about how policymakers communicate carbon pricing policies by stating “*equity social justice ... for days ... energy transition yes for everything and especially what happens to our taxes ... because not sure where they go they are intended and that budgetary rigor is imposed on all*“ (sic) (Fb/T1/44), while the other person emphasizes the importance to follow a coherent goal in tax policy, which compromises that “*any tax (ecological or not) must be accompanied by a clear explanation, monitoring and evaluation of the measures it finances*“ (Fb/T1/45).

Transparency in decision-making process: *The communication about climate policy is seen as intransparent* (PD/T1/16; NC/T2/88; CCC/T3/36; CCC/T3/38). Communication by the government and the industry is viewed as intransparent, as information is not always fully disclosed, contributing to perceived procedural justice. For example, it is stressed that legislative work in the French and EU parliaments “*must be done as close as possible to the populations in transparency*“ (CCC/T3/38). Concerning the planned increase of the carbon tax, someone complains that the government should “*stop making us believe that there is no alternative to oil*“ (NC/T2/88). Likewise, intransparent marketing and advertising techniques are criticized for their design “*to mask the reality of what the consumer is buying, preventing them from making informed decisions*“ (CCC/T3/36).

Citizens’ engagement in decision-making process

Referendum: *The willingness for citizens to engage in decision-making processes through referendums is high* (PD/T1/17; Fb/T1/46; Fb/T1/47; Fb/T1/48; Fb/T1/49; NC/T2/89). The introduction of a citizens’ initiative referendum (‘*RIC*’) as direct democracy mechanism is one of the main demands of the YV movement, hence it finds great support in the statements. The RIC would provide opportunities for citizens to actively participate and shape the political

process, this way the societal problems could “*thereafter be answered point by point*“ (Fb/T1/47). The idea of the RIC resonates with one government representative who shares this demand “*to be heard, including in the context of the establishment of a referendum of citizen initiative that we support in principle and whose urgency is certain!*“ (PD/T1/17).

Citizens’ assembly: The willingness for citizens to engage in decision-making processes through citizens’ assemblies and collectives is high (Fb/T1/50; Fb/T3/4; CCC/T3/39). Citizens’ assemblies such as the Citizens’ Convention on Climate are viewed as effective tool to involve citizens (Fb/T1/50; CCC/T3/39). Likewise, citizens’ collectives set at the local level “*composed of citizens and associations and independent of any political party and of any constituted list.. that organize citizen participation by encouraging a dialogue between the citizens and the candidates*“ (Fb/T3/4) are seen as essential so that the “*ecological, social and democratic transition*“ (Fb/T3/4) could be realized in a bottom-up manner in accordance with citizens.

5.1.3. Recognition justice

The analysis of the perceptions of recognition justice suggests that generally individuals perceive that economic vulnerable groups and nature in its own right are only minorly recognized in climate policy (Table 8). Inductively derived is the key variable *recognition of nature* as indicated by the *attention for nature given in climate policy*, as well as the indicator *attention for future generations* that is allocated to the key variable *recognition of vulnerable groups*.

Table 8. Patterns of perceived recognitional aspects

Key variable	Indicator	Pattern
Recognition of vulnerable groups	Attention for economic vulnerable groups	Life in dignity
	Attention for future generations	Standard of living Abilities
Recognition of nature	Attention for nature	Intrinsic value Instrumental value

5.1.3.1. Recognition of vulnerable groups

When referred to the *recognition of vulnerable groups*, *economic vulnerable groups* and *future generations* are mentioned.

Attention for economic vulnerable groups in climate policy

Life in dignity: Economic vulnerable groups should be stronger recognized in climate policy so that they can live in dignity (PD/2017/24; PD/T1/18; PD/T1/19; PD/T1/20; PD/T1/21; PD/T1/22; Fb/T1/51; Fb/T1/52; Fb/T1/53; Fb/T1/54). The need for special attention to the poor households is abundantly expressed. The concerned households are described as “*those who are already disadvantaged*“ (Fb/T1/51), “*those struggling to make ends meet*“ (PD/T1/22), “*those who only demand dignity and those who desire to live with dignity from their work*“ (PD/T1/19). Many feel that the current climate policy fell short in recognizing poorest and low-income households e.g. “*The government is pretending to ignore this demand for tax justice, social justice, the desire to live with dignity from our work.*“ (Fb/T1/52). The recognition of vulnerable groups is seen as inevitable because “*an ecological transition that disadvantages those who are already disadvantaged and preserves those who are preserved is a dead end*“ (Fb/T1/51). One government representative explicitly mentions that “*it is important at least to better recognize them, to equip them with certain tools and to increase their compensation as it should be, especially in terms of mileage, especially since the price of fuel is far from being wise at the moment...*“ (sic) (PD/T1/21). Another representative views the recognition of vulnerable groups in climate policies in the light of procedural justice arguing that “*justice must be as inclusive as possible*“ meaning that it must be “*attentive to the most disadvantaged*“ (PD/T1/20).

Attention for future generations in climate policy

Standard of living: Future generations should be recognized in climate policy so that their standards of living will not be compromised by the actions of presentation generations (PD/2017/10; Fb/T1/55; Fb/T1/56; Fb/T1/57; Fb/T2/7; NC/T2/92; CCC/T3/40). It is highlighted that future generations will be left not only an “*economic debt but also an ecological debt, which will deprive them of the resources that have allowed us to live far beyond our means, without any sense of proportion*“, therefore in order to install measures “*to be taken to limit the use of non-renewable natural resources and global warming*“ (CCC/T3/40) politicians would need to raise to the level of social norms to make these measures acceptable. The need to recognize future generations in a consistent climate policy is stressed, as solely acting in economic interests by “*exempting the main polluters from the so-called carbon tax*“ (PD/2017/10) whose record profits have a considerable and immediate costs for future generations could no longer be justified. In the question of how economic interests should be integrated into climate policy, there is an openness towards governmental investments in

private companies that work on climate mitigation projects in the light of holding responsibility for future generations “*so that in the future, our children can live in better conditions. So that our children do not have to experience incessant conflicts for climatic reasons*“ (NC/T2/92) and given that “*today we all know the climate issues, we do not have the right to continue to ignore the state of our planet*“ (NC/T2/92).

The YV also recognize future generations in their political demands, emphasizing that students should likewise become politically active because “*their future is also in the game, let them be aware of it...*” (Fb/T1/57) or generally expressed the motivation to protest because “*the future of our children is at stake*“ (Fb/T2/7). At the same time, there are some voices that criticize the ecological orientation of the YV, especially with regard to future generations. One citizen thinks that it is regrettable that the YV “*refuse any idea of ecological policy having obtained the end of the fuel increase*“ given that this policy lies also in the interest of their own children who cynically speaking as “*future chronic asthmatics will appreciate*“ (Fb/T1/55). Similarly, another person criticizes the YV’s for demanding increased purchasing power while at the same time ignoring the consequences of overconsumption that are inherently linked and that would endanger the capabilities of future generations (Fb/T1/56).

Abilities: *Future generations should be recognized in climate policy so to strengthen their ability to develop pro-environmental behavior* (NC/T2/90; NC/T2/91). Interestingly, not only how behavioral aspects of present generations that impact future generations that could be changed through policies are mentioned, but what it means for future generations to be able to adapt themselves to the changing climate is revealed by some statements. In order to not compromise the possibilities of choices that future generations will have “*explaining to my children to take care of our planet for their future*“ (NC/T2/91) and “*let's start training our young people for this future*“ (NC/T2/90) are mentioned.

5.1.3.2. Recognition of nature

Intrinsic value: *The nature has intrinsic value and is thus worthy of being recognized* (PD/2017/10; Fb/T1/58; NC/T2/93; CCC/T3/41). By the same token one representative argues against the exemption of polluting firms from the carbon tax, which she perceives as distributional injustice and explained that those firms given exemptions “*have a considerable and immediate cost for the general environmental interest of the planet [...] which is no longer tenable*“ (PD/2017/10). Environmental interest of the planet conceives that the environment is assigned rights. In two other examples, the environment in its own right is deemed indirect consideration and recognition by “*putting forward the people who respect the environment by*

presenting them as the people to follow“ (NC/T2/93) and by *“ecology and social justice being at the root of the respect of the living and of humanity”* (Fb/T1/58). Suggesting to declare a global climate emergency implies that the climate system and consequently nature as such deserves recognition (CCC/T3/41).

Instrumental value: *The nature has instrumental value and is thus worthy of being recognized* (NC/T2/96; NC/T2/97). The role of the nature in the provision of ecosystem services stating that the changing climate would impact *“harvests and therefore the products available in supermarkets”* was also acknowledged (NC/T2/97). Likewise, it is emphasized to *“recognize the triple role of farmers”* as arguably they should be given attention based on their elaborated responsibility for *“food production, preservation and restoration of nature and landscape, protection of public health”* (NC/T2/96).

5.2. Perceiver and situational factors

In this subchapter, I address the second research sub-question posed in chapter 1: *Which perceiver and situational factors influence the justice perceptions of climate policy in the case of the Yellow Vests movement?* As a first step, the identified patterns for the perceiver and situational factors are presented and subsequently, the causal perspectives of which factors influence the justice perceptions are explained (Chapter 6.).

5.2.1. Perceiver factors

The analysis of perceiver factors suggests that *belief in climate change* is reflected throughout all statements. This is why, this indicator is singled out, as it is exclusively reflected in all statements and hence no further insights could be derived from it. Likewise, the indicator *material self-interest* is singled out, as it is not reflected in the empirical data at all. These two indicators are further discussed in section 7.1. Moreover, the analysis of perceiver factors reveals that a number of indicators are inductively derived. These include *collective identity* as indicator for the key variable *individual characteristics*, *belief in effectiveness of individual behavior change*, *belief in polluter-pays principle* and *belief in moral responsibility* as indicators for *beliefs*. For the key variable *motivations* the indicator *environmental motivation* is identified. *Table 9* presents the identified patterns of the perceiver factors.

Table 9. Patterns of perceiver factors

Key variable	Indicator	Pattern
Individual characteristics	Trust in government	Integrity Reliability
	Collective Identity	Common cause Citizenship Us vs. them categorization
Beliefs	Belief in effectiveness of individual behavior change	Consumer decisions Political consumerism
	Belief in climate change	
	Belief in effectiveness of policy	Policy design Policy communication
	Belief in polluter-pays principle	Responsibility assigned to polluter
	Belief in moral responsibility	Responsibility assigned to subject of justice
Motivations	Environmental motivation	Socio-environmental motivation Strong environmental motivation
	Material self-interest	

5.2.1.1. Individual characteristics

The perceiver factors *trust in government* and *collective identity* are identified as individual characteristics that both attributable to one's relation to authority.

Trust in government

Integrity: A perceived lack of political integrity undermines trust in government (Fb/T1/59; Fb/T1/60; Fb/T1/61; Fb/T1/62; Fb/T1/63; Fb/T1/64; Fb/T1/65; Fb/T1/66; Fb/T1/67; Fb/T1/68; Fb/T2/8; Fb/T2/9; Fb/T2/10; Fb/T2/11; Fb/T2/12; Fb/T2/13; Fb/T3/5; Fb/T3/6; Fb/T3/7). Many perceive the government as being corrupt e.g. “*These are the financiers who financed his electoral campaign [...] Where is the limit between lobbying and corruption?*“ (Fb/T3/5) or “*If you have an idea I'd like to, because I'm sick of not being able to do anything as I see the future getting darker and darker for everyone except the elites, oligarchs, elected officials, media, corrupted by the system, accomplices*“ (Fb/T2/9).

Moreover, numerous citizens condemn the violent police response to the protests and speak of “*police repression against the YV*“ (Fb/T1/67) and that the “*corrupt government threatens*

us with weapons“ (Fb/T1/60). Consequently *“no one trusts the police and justice system in this country anymore*“ (Fb/T3/7). Moreover, the behavior of institutional officials is disvalued to a point at which the *“government that does not respect human rights and does not respect the people*“ (Fb/T2/13) implying major distrust in the government and perceived illegitimacy. Likewise, it is believed that the government is *“illegitimately elected*“ (Fb/T1/63).

Reliability: *A perceived lack of political reliability undermines trust in government* (Fb/T1/69; Fb/T1/70; Fb/T2/14; Fb/T2/15; Fb/T2/16; Fb/T2/17; Fb/T2/18; Fb/T2/19; Fb/T2/20; Fb/T2/21; NC/T2/95; NC/T2/96; Fb/T3/7). The perception of the government as unreliable is commonly shared. Some accuse the government of being inconsistent and manipulative, by explicitly stating that *"They lie and manipulate the news to discredit us and make us weak. They want to continue to impoverish us to better enrich themselves at our expense*“ (Fb/T1/69) or by referring to the nationwide consultations *"This pseudo debate is a farce aimed at putting the people to sleep... Beware of the increases that are coming on fuel, those that are coming on food and electricity [...] This government must go.*“ (Fb/T2/17). General concern over the enforcement of climate policy is shared by e.g. *"Proving to me that I am not the only one pedaling... While the real polluters continue their guilty activities.*“ (sic) (NC/T2/96) or by *"Posting the targets, sticking to them, is to enforce. The industry will accept it. If you are weak, we all lose. The government made a fool of itself with Glyphosate, it's not too late to regain trust.*“ (NC/T2/95).

Collective Identity

Common cause: *Sharing a common cause characterizes the collective identity of the YV* (Fb/T1/71; Fb/T1/72; Fb/T1/73; Fb/T2/22; Fb/T2/23). The first pattern concerns the shared cause of concern. Although that motivations to protest vary among individuals, bonding over a common cause can be interpreted as the glue that holds the YV together. Examples include *“together to save our beautiful planet*“ (Fb/T1/72), *"The yellow vests you can describe them in three words, courageous, emphatic and dedicated to a common cause.*“ (Fb/T2/22). Striving for the lowest common denominator to overcome the inner fragmentation of the movement is emphasized because the diversity of ideological background (Adam-Troian, Mahfud, Urbanska, & Guimond, 2021) would possibly not allow collective identification (Fb/T1/73).

Citizenship: *Values of citizenship characterize the collective identity of the YV* (Fb/T1/74; Fb/T1/75). Second, the YV bond over the French national identity that is embodied by the motto ‘freedom, equality and brotherhood’. Some felt that by protesting together with people who

share the same life reality, the YV gave them a sense of belonging to France, being a citizen friend (Fb/T1/74) and experiencing fraternity (Fb/T1/75).

Us vs. them categorization: *Us vs. them categorizations characterize the collective identity of the YV* (PD/T1/24; Fb/T1/76; Fb/T2/24; Fb/T2/25; Fb/T2/26). Third, the YV collectively perceive that the French society is increasingly divided into two groups that are categorized as poor ‘us’ at the bottom and the rich ‘them’ at the top of the hierarchy, as also described by "*It's a citizen movement against all the mistakes made by our elitist leaders to favor the very rich and to widen ever more injustices and the social fracture*" (Fb/T1/76). "*The contempt that comes from above*" (PD/T1/24) is felt by many who therefore seek to distance themselves from ‘them’ by e.g. stating "*The "great debate" is a masquerade and a travesty of Democracy! To participate in it is to be an accomplice and to support it!*" (Fb/T2/26).

5.2.1.2. Beliefs

Three indicators are identified for beliefs: *belief in effectiveness of individual behavior change, belief in polluter-pays principle and belief in moral responsibility.*

Belief in effectiveness of individual behavior change

Political consumerism: *Consumer boycott is deemed effective in changing the unsustainable behavior of firms* (Fb, T1, 77; Fb, T1, 78; Fb, T1, 79; Fb, T1, 80; Fb/T2/28; Fb/T2/29; Fb/T2/30; CCC/T3/42). Most frequently *political consumerism* i.e. the power of consumers to influence a more just marketplace (Neilson, 2010) is addressed "*citizens must have a lever to put pressure on the most emitting companies, in order to encourage them to decarbonize their activities*" (CCC/T3/42). Specifically, the act of boycotting is seen as effective "*Already as consumers, let's boycott everything that is not ecological.*" (Fb/T2/29). Many call to boycott *Amazon* that "*practices tax evasion in France*" (Fb, T1, 78), which would need to be considered in the "*talk about tax justice*" (Fb/T2/30), while others are motivated to boycott *Amazon* for its "*mass destruction of workers and the environment*" (Fb/T2/28).

Consumer decisions: *Consumer decisions are deemed effective in changing unsustainable behavior of firms* (Fb/T1/77; Fb/T2/27; Fb/T3/8). Consumer decisions are mentioned, such as switching to goods with lower carbon footprint in production "*buy only second hand, buy your vegetables from France*" (Fb/T2/27) or generating renewable energies "*The sun provides 6000 times the energy needs of the planet, I am willing to lend my roof to put solar panels on it because I can't afford to invest by myself!*" (Fb/T1/77). Conversely, the view that the unwillingness to change individual behavior as such would affect the way policies are made is

addressed: *“How many titles on motor vehicles? More than 100! The people are not ready so the government is not ready either. So, we only get the measures we deserve.”* (Fb/T3/8).

Belief in effectiveness of policy

Policy design: Different positions about the implementation for climate-related measures are presented (PD/2017/25; PD/2017/26; PD/2017/27; PD/T1/11; PD/T1/12; PD/T1/25; PD/T1/26; PD/2017/27; PD/T1/28; Fb/T1/81; Fb/T1/82; Fb/T1/83; Fb/T1/84; Fb/T1/85; Fb/T2/33; NC/T2/98; NC/T2/99; CCC/T3/43; CCC/T3/44; CCC/T3/45). Most references about the effectiveness of policy refer to environmental taxation. Without providing further context taxes are completely denounced by two citizens, e.g. in order to *“facilitate/accelerate/increase investments for the climate, they must be 100% tax free”* (CCC/T3/45) and *“Increasing taxes is not a solution because they are diverted to other purposes!!!”* (NC/T2/98). The government’s vision described as *“just market shares to seize”* (Fb/T1/85) would arguably not allow an ecological transition since *“the purchasing power for a growing part of the population is simply to survive”* (Fb/T1/85). Likewise, the liberal climate policy is perceived as ineffective in the service of a popular ecology (PD/T1/11). Equally, it is stated that *“we need ecology to save the planet”* (CCC/T3/44) given that the increased ideological polarization of domestic climate policy as green dogmatic would not be effective. Instead of providing financial aid that *“has often been used for poor results and to increase the market price on the proposed action”* (NC/T2/99), it is suggested that state aid should be qualitative and controlled, and that it should rather impel a norm change *“to be satisfied with the necessary and sufficient”* (NC/T2/99).

Concerning further aspects about the policy design, investments in renewable energies such as wind and solar energy are criticized as *“the financing of the wind and solar energy by taxes on the fuel without that this useless intermittent electricity does not allow to save the least drop of oil”* (Fb/T2/33) and for its negative impacts on biodiversity and landscapes (CCC/T3/43). Carbon taxation is only perceived as punitive instrument for private vehicle owner given that alternative incentives such as provisions in the finance of electric vehicles are left unconsidered in its policy design (PD/T1/26; PD/2017/27).

On the other hand, it is urged to consider new mobility solutions for rural areas in the discussion of the carbon tax because arguably *“These solutions are more environmentally friendly and, above all, less expensive than the private car for the French people who live there”* (PD/T1/25). Being affirmative of the aforementioned point, another representative states that *“In the global reflection that we will carry out on the energy transition and on ecological*

taxation, we will have to examine the acceptability of the measures that we will consider, but also the alternatives.“ (PD/T1/28).

Policy communication: *The effectiveness and honesty of the current policy communication is questioned* (PD/T1/29; Fb/T2/29; Fb/T2/30; Fb/T1/86; Fb/T2/30; Fb/T2/31; Fb/T2/32; Fb/T2/33). As a result of the perceived intransparent communication of how the tax revenue is spent combined with the perception that e.g. *“public services are in permanent decline“* (Fb/T1/86), some feel that the ecological cause of the policy was *“a pretext to justify the tax bludgeoning“* (Fb/T1/86) and *“the yellow vests are in the street because they are paying the price of real tax bludgeoning“* (PD/T1/29). Citizens’ participation as political instrument is seen as ineffective by some e.g. the policy evaluation during the nationwide consultations is argued to be too costly *“the money could have been used elsewhere“* (Fb/T2/31), a means to push Macron’s agenda *“a masquerade on the eve of the European elections“* (Fb/T2/32) and it does not capture a wide range of viewpoints *“on energy, the debate is corseted to the dogma of “50% of nuclear” and promotion of renewable energies...which does not allow to save the least drop of oil“* (Fb/T2/33). On the other hand, the consultations are seen as useful opportunity to determine citizens’ preferences *“on the subject of ecological taxation“* (PD/T1/30).

Belief in polluter pays principle

Responsibility assigned to polluter: *The assignment of responsibility to the polluter is widely supported.* The polluter-pays principle is commonly addressed (Fb/T1/87; Fb/T1/88; NC/T2/100; NC/T2/101; NC/T2/102; NC/T2/103; NC/T2/104; NC/T2/105; NC/T2/106; NC/T2/107; NC/T2/108; NC/T2/109; NC/T2/110; CCC/T3/46). Both individual and industrial polluters are assigned responsibility to pay. Some emphasize the need to penalize those with high pollution levels through elevated prices e.g. *“large consumers will pay more“* (CCC/T3/46) or *“make polluters pay gradually, but firmly“* (NC/T2/103).

Belief in moral responsibility

In the perception of *moral responsibility*, six groups are identified based on the defined subjects of justice. These concern *individuals, citizens, producers, consumers, cosmopolitans* and *present generations* as subjects of justice.

Responsibility assigned to subject of justice: *The assignment of moral responsibility is not uniformly perceived.* In the first group, *individuals* are defined as subjects of justice (Fb/T2/34; NC/T2/111; NC/T2/112; CCC/T3/47; CCC/T3/48). Based on increasing climate change awareness, individuals are assigned responsibility as they *“don't have the right to continue to ignore the state of our planet.“* (CCC/T3/48). Generally, acknowledging the urgency for

climate action, others emphasize that in a sustainable future's society *"everyone must be responsible"* (CCC/T3/47), *"everyone needs to make an effort"* (NC/T2/112) and *"everyone's actions to improve the environment on a daily basis will be more effective than all the political announcements with varying geometry"* (NC/T2/111).

In the second group, subjects of justice are defined based on membership of shared nationality and citizenship (Biermann & Kalfagianni, 2020). These include various understandings of a reasonable *citizen* (CCC/T3/49; Fb/T1/89; Fb/T1/90; NC/T2/113; NC/T2/114). Environmental preservation regardless of economic constraints is considered as ecological virtue and is argued to become a duty for citizens in the light of an inadequate climate domestic governance. Similarly, a responsible citizen attitude is described to require understanding the complexity of climate and environmental issues instead of *"simply demanding lower fuel prices and turning a blind eye to the ecological and health impact of our dependence on fossil fuels"* (Fb/T1/90). Citizenship is seen as inherent to the desire to preserve nature and *"wearing a yellow vest"* (Fb/T1/89). Contrary to that, *"citizens who do not do anything positive for the environment"* (NC/T2/114) are assigned higher taxes.

Producers are identified as subjects of justice in the third group (Fb/T3/11; NC/T2/116; NC/T2/117; NC/T2/118). Arguing that manufacturers should hold responsibility for the negative climate impacts of polluting vehicles in the first place because consumers *"see the practicality of it ... they don't think it can be bad since they are offered to us!"* (sic) (Fb/T3/11), which also implies that the consumer is protected by law against unsustainable practices. Production patterns are linked to induce more climate-related effects than consumption patterns, hence producers are assigned responsibility (NC/T2/117; NC/T2/118). Likewise, perceived by another citizens *"individual consumption is still a drop in the bucket compared to industrial production, industrial agriculture and livestock farming, large-scale freight transport"* (NC/T2/116).

The fourth group includes *consumers* as subjects of justice (Fb/T1/91; Fb/T2/35; NC/T2/115; Fb/T3/9; Fb/T3/10). Conversely to the argument that production patterns account for the highest pollution levels, consumers are assigned responsibility as they are perceived to have the strongest climate impact through their decisions *"The debate is not about supply, but about demand: it is up to us consumers to assume, to bypass, to refuse, to boycott, to inform ourselves, to learn, to pass on, to change, to renounce, to be wary, not to swallow anything, etc..."* (sic) (Fb/T3/9). The importance of consumer decisions such as consuming less (Fb/T2/35), denouncing Black Friday, drawing attention to the *"absurdity of*

hyperconsumption“ (Fb/T3/10) and being supported through policy benefits “*to make even more personal efforts to consume less*“ (NC/T2/115) are stressed by others.

In the fifth group, based on global interdependence *cosmopolitans* (Biermann & Kalfagianni, 2020) are identified as subjects of justice (NC/T2/119; NC/T2/120; NC/T2/121; NC/T2/122; NC/T2/123; NC/T2/124). Several view the fact that “*we all live on the same planet*“ (NC/T2/120) as justification that all individuals hold planetary responsibility to ultimately “*advance this issue together*“ (NC/T2/119). This is expressed e.g. by “*helping poor countries*“ (NC/T2/120), holding other countries accountable that their emissions from fossil fuel industries contribute to global warming “*remind Germany that coal-fired power plants are a disaster for Europe*“ (NC/T2/121) and vice versa considering the potential risks of domestic nuclear power production for other countries “*we are putting our neighbors in danger with our aging nuclear power plants*“ (NC/T2/121). Moreover, France is argued to hold responsibility to “*respect its commitments*“ (NC/T2/123) with the adoption of the Paris Agreement to limit global warming to 1,5°C. According to another person, the constraints limiting right to pollute of “*each country, each company, each person*“ (NC/T2/124) should be defined at the global scale to allow an even distribution of pollution burdens.

Last, *present generations* are found as sixth group as subjects of justice (NC/T2/125; NC/T2/126; NC/T2/126; Fb/T3/12). Several view that present generations hold environmental responsibility toward future generations. Thus, given the long-term nature of environmental problems and climate change, present generations should align their behavior according to a right to pollute to not limit “*the right of life of our grandchildren*“ (NC/T2/126). Similar expressions are shared such as “*that we are borrowing the earth from our grandchildren*“ (NC/T2/127) or “*in 30 years, when our economic model will have killed our planet, when our children will ask us to be accountable*“ (NC/T2/125).

5.2.1.3. Motivations

Environmental motivation is found as only indicator for *motivations*.

Environmental motivation

Socio-environmental motivation: *The motivation to act pro-environmentally is coupled with social motivations* (PD/2017/5; Fb/T1/22; Fb/T1/92; PD/T1/10; NC/T2/36; NC/T2/37CCC/T3/19; CCC/T3/21; CCC/T3/22). Interestingly, although social motivations could be observed in the data, they are mostly coupled to environmental motivations. For instance, one person states “*having the possibility to finance this change, aid must be reserved for those who need it*“ (NC/T2/37). In this example the motivation for social support becomes

paramount, yet it is linked to the financing of the ecological transition. Likewise, "*eco-consumption vouchers for the poorest*" (CCC/T3/21) shows this twofold motivation.

Strong environmental motivation: *The motivation to act pro-environmentally is very strong* (Fb/T1/83; Fb/T1/93; Fb/T1/94; NC/T2/101; NC/T2/128; NC/T2/129; CCC/T3/41; CCC/T3/48; Fb/T3/13). Varying in the degree to which individuals expressed that they are motivated to act pro-environmentally, the majority of references shows strong environmental motivations with the exception of one person who interpreted climate change as left strategy to gain tax revenue "*Climate change is a left-wing duck to tax the people.*" (Fb/T1/94): reaching from describing scientific knowledge as motivator for protest "*Our commitment and concerns are not based on activist leaflets, they are based on scientific evidence.*" (Fb/T1/93), over acknowledging the urgency to "*requiring an immediate halt to the release of carbon dioxide into the atmosphere causing the deadly Greenhouse Effect*" (CCC/T3/41) and similarly "*to respect the regenerative capacity of the planet*" (NC/T2/101) to despite not perceive climate change directly "*Today we all know the climate issues, we don't have the right to continue to ignore the state of our planet.*" (CCC/T3/48).

A few individuals consider the human role in accelerating climate change, by e.g. stating "*The only planetary emergency is ecological. What impact on purchasing power and worse on the power to survive when the planet is on fire?*" (Fb/T1/83). Furthermore, almost all citizens show environmental support either by requesting the implementation of climate policy measures to stimulate behavioral change in general or adapting a more pro-environmental individual behavior.

5.2.2. *Situational factors: Economic situation*

As situational factor the *economic situation* is found as only factor to play a role in affecting justice perceptions of climate policy. *International situation* and *rural situation* are identified as new indicators that fall under this key variable. *Table 10* presents the identified patterns of the situational factors.

Table 10. Patterns of situational factors

Key variable	Indicator	Pattern
Economic situation	International situation	Tax inequality
	Rural situation	Inadequate transport infrastructure Limited employment opportunities
	Income distribution	Strong economic inequality Relative deprivation

International situation

Tax inequality: Tax inequality between countries negatively impacts the domestic economic situation (PD/2017/28; Fb/T1/95; Fb/T1/96; Fb/T1/97; Fb/T2/36). Several citizens view that tax inequality between countries and tax havens could hamper France's competitiveness. Therefore, for the naval sector it would be justified "to exempt sea trials from the domestic consumption tax on energy products in the same way as aeronautics" (PD/2017/28) and arguably, in the future environmental tax policy should be "harmonized at the European level" (Fb/T1/96), otherwise the competitiveness of the domestic shipping industry could not be supported and an uneven playing field would be created.

Rural situation

Limited employment opportunities: Limited employment opportunities negatively burden rural households (PD/T1/8; Fb/T1/101; NC/T2/131; NC/T2/132; NC/T2/133; NC/T2/134; NC/T2/135; NC/T2/136). Concerning the regional situation, it is criticized that local issues are left unconsidered in domestic climate policy. Poor economic opportunities that would result in reduced purchasing power are described to "manufacture inequality...it is those in the forgotten territories of the Republic that will suffer the most?" (sic) (PD/T1/8), similarly the tax burden is perceived as too high in general e.g. "for forgotten countryside like mine local taxes are already twice the departmental average, they can't increase more" (NC/T2/133). As a result of the territorial devitalization "employment areas far from the places of life" are created (NC/T2/131), through which traveling by private transport to the workplace becomes indispensable because "public transport can compete with cars" (NC/T2/136) due to a poorly developed infrastructure that is argued to not even be profitable enough to be left to the market alone (NC/T2/135).

Inadequate transport infrastructure: The inadequate public infrastructure makes rural households dependent on private transport and thus the policy burden impacts them stronger than urban households (Fb/T1/100; PD/T1/28; PD/T1/31; PD/T1/32; PD/T1/33; Fb/T1/98; Fb/T1/99; NC/T2/130). Not only being confronted with spatial immobility, it is pointed out that rural households cannot benefit from the same transportation systems since e.g. electric cars are unsuitable "for those who live in the countryside it's impossible to install a hitch on an electric car, it's an almost indispensable accessory" (Fb/T1/100).

Moreover, reoccurring throughout the statements is the "feeling of abandonment" (PD/T1/32) which is arguably given rise by the territorial inequality between rural and urban areas. "Lack of jobs and public services" (Fb/T1/98) in peripheral and rural areas combined

with reforms that gradually “*devitalize the territories, that empty the communes of their shops, their schools and their doctors - doctors who used to be local*“ (PD/T1/28) is leading to rural citizens feeling “*left out*“ (PD/T1/33) or feeling like “*victims of desertification*“ (Fb/T1/98). Given that these areas are incrementally “*excluded from the social link and the public space*“ (Fb/T1/99) individuals rely on private transport “*that allows them to reach the outside world and connect to the rest of the world*“ (Fb/T1/99).

Income distribution

Strong economic inequality: *The perceived economic inequality between rich and poor households is a difference between classes* (PD/2017/29; PD/T1/3; PD/T1/7; Fb/T1/102; Fb/T1/103; Fb/T1/104; Fb/T1/105; Fb/T1/106; Fb/T1/108; Fb/T1/109; Fb/T2/37; NC/T2/73; Fb/T3/14). Concerning the income distribution, the rising economic inequality between upper-class elites and lower-class citizens is felt strongly by many. The perceived economic difference between the two groups becomes clear in the juxtaposition between those living “*in indecent opulence*“ (Fb/T1/109) or “*beyond reasonable means*“ (Fb/T1/103) versus those “*who can't make ends meet*“ (Fb/T1/108) or “*who have to survive on a miserable pension*“ (Fb/T1/108). Consequently, many feel there is a lack of understanding by policy-makers and authorities for the citizens’ circumstances and life realities stating that they “*have no idea of the cost of living*“ (Fb/T1/105) and are “*incapable of living like we do on a daily basis*“ (Fb/T1/104). Some feel misrepresented by the government “*because there is too much social difference*“ (Fb/T1/106), exacerbated by Macron who is perceived aligned with the elites “*only the rich can understand him*“ (Fb/T3/14).

Relative deprivation: *Feelings of relative deprivation around economic support contribute to the perception of being disadvantaged* (PD/T1/3; PD/T1/7; Fb/T1/110; Fb/T2/38). Perceptions of relative deprivation are also reflected among a few individuals. For instance, some felt deprived of migrants seemingly receiving more economic support than they believe to be entitled for themselves by stating “*it is about openly screwing up, the unfair treatment system, taxes for citizens in favor of migrants who are housed and fed while they have done nothing for the nation*“ (Fb/T1/110) and “*migrants will replace them*“ (Fb/T2/38). On a more general note, it could be argued that perceptions of relative deprivation are also caused by the social and economic fracture. Many viewed that climate policy measures such as the carbon tax are reserved as “*project for the rich*“ (PD/T1/3) since e.g. “*citizens do not have the means to immediately change their vehicle*“ (PD/T1/7).

CHAPTER 6. RESULTS 2: IDENTIFICATION OF CAUSAL PERSPECTIVES

After having discussed the patterns of justice perceptions of climate policy as well as the perceiver and situational factors, the following chapter describes the identified causal perspectives and explains their similarities and potential interrelatedness. Recognizing that there are variations in the justice perceptions among individuals, nine different causal perspectives can be identified that explain how perceiver and situational factors influence the justice perceptions of climate policy. These perspectives are further structured into three major groups that each account for a similar thematic focus. The first group summarizes causal relationships in which perceptions of injustice are linked to the specific affectedness by climate policy measures, in this case the carbon tax. The second group refers to causal relationships that ask why measures such as the carbon tax with its unjust effects have come about or who and for what reasons is to be held accountable for this. Behind this is the accusation that political power in France itself is unfairly distributed. The third group addresses questions of a socially sustainable climate policy based on perceptions of fundamental civic responsibility in the context of climate policy.

In the respective figures, the white boxes indicate the perceiver and situational factors that influence the justice perceptions. The grey boxes indicate the potential outcome of a relation which refers to the three justice dimensions. Dotted arrows indicate literature-based or empirically derived scope conditions.

6.1. Group 1: Who is affected by the injustices?

The first group of perspectives guided by the question of *who is affected by the injustices?* explains the relation between direct personal affectedness and justice perceptions of climate policy. Different socio-economic groups (low-income and rural households, and farmers) that are each differently affected by climate policy come together and claim as a whole to be ignored, cannot participate and suffer from distributive burdens.

6.1.1. Economic inequality

The first perspective explains how economic inequality perceived by low-income households is connected to the perception of injustices of climate policy (*Figure 7*). It highlights that economic vulnerable households, as those who are perceived to be strongest affected by the regressive impacts of the carbon tax, come together as social group within the YV, and differentiate themselves from the elite groups that form a stark contrast to their economic situation.

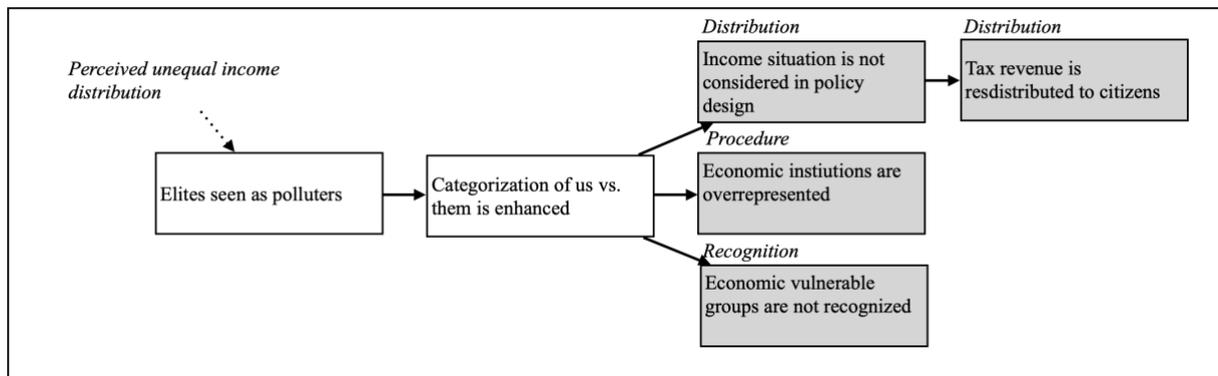


Figure 7. Causal perspective 1: Economic inequality

This perspective is characterized by four perceived justice aspects. The penalizing impact of the carbon tax on poor and low-income households is widely perceived as unjust. This suggests that as a consequence carbon pricing would be perceived as more just if it would provide financial relief to those households that it puts at disadvantage. Furthermore, a redistribution of tax revenue to citizens instead of using it as state's budget is also revealed, e.g. by stating "*Why shouldn't the recipients of tax gifts consider paying real citizen gifts?*" (Fb/T1/28). The perception that tax revenue should be in this case redistributed to citizens illustrates distrust in government of not knowing how the revenue is spent.

As the elites are perceived to hold instrumental power over industries and thus the decision-making process, as reflected in the perceived overrepresentation of economic institutions, they are perceived to play a key role in the contestation over policy outputs, as stated by e.g. "*There will be no ecological transition as long as financiers, bankers, traders will continue to direct our policies through lobbying.*" (NC/T2/74). Economic vulnerable households are perceived as insufficiently recognized, which becomes apparent in statements that illustrate the disconnection from low-income and poor households of policymakers e.g. "*Most of our elected officials have no idea of the cost of living*" (Fb/T1/105). Despite that low-income households are in fact recognized in parliamentary debates, in the perception of many the recognition by climate policy of low-income households is not shared in the same way. The fact that the policy design of the regressive carbon tax does not take into account one's income situation results in the perception that low-income households are not recognized in general. In this case the perceived injustice is fortified by economic institutions that are perceived as overrepresented limiting the representation of other social groups such as low-income households. In other words, the lack of recognition in concert with the underrepresentation of low-income households unveils and amplifies the perceived distributional aspects of the regressive tax as unjust.

Two factors influence this perspective. Generally, many notice the unequal income distribution between the elites and low-income households that would expose a “*social fracture*“ (Fb/T1/36) in which the elites are seen as polluters, as expressed by e.g. “*While some of us are sleeping in their cars, these "elites" are driving Ferraris, putting gasoline in their yachts*“ (Fb/T1/104). Together these two factors enhance the categorization of two social groups based on the strong difference in income and wealth of ‘us’ (i.e. low-income households) and ‘them’ (i.e. elites), e.g. expressed by “*Do not divide yourselves from the rest of France, this will only give victory to the Elite*” (Fb/T1/107).

6.1.2. Agriculture

The second perspective establishes the particular meaning of agriculture in the self-understanding of the YV (Figure 8). Although only affected to some extent by the carbon tax, the theme of agriculture takes on a symbolic meaning in the perceptions. This perspective highlights that organic farmers define a further social group that is perceived as disadvantaged, especially in comparison to conventional farmers, and strongly affected by climate policy measures. The affectedness of this group is perceived by many, although it might only be factually present to some degree as protest group. Therefore, it could be argued that this social group is prescribed symbolic meaning that could through their principles and practices play a crucial role in climate mitigation and adaptation.

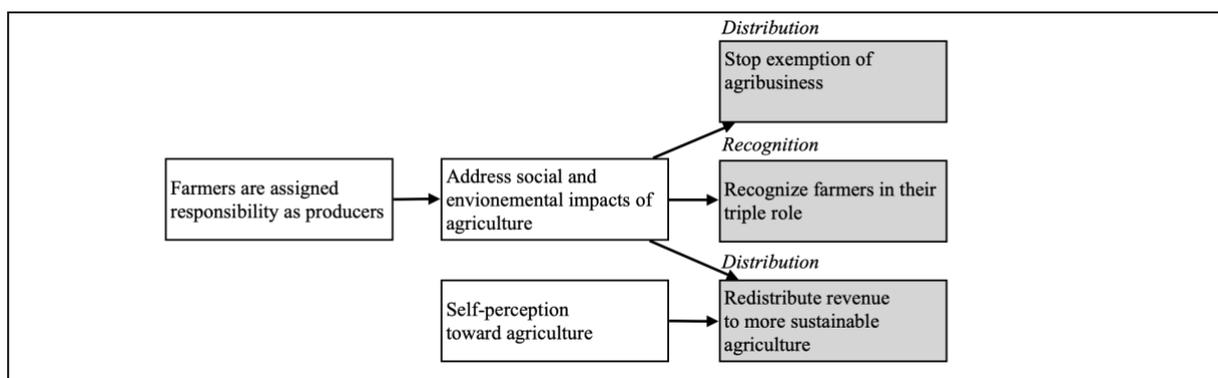


Figure 8. Causal perspective 2: Agriculture

Three perceived justice aspects pertain to this perspective. First, despite the heterogeneity in the perception of which sectors should be given exemptions and privileges, most statements refer to end the exemption of the industrial agriculture from the carbon tax. These references stress specifically to impose higher burdens on the agro-industrial sector through the suspension of current subsidies and higher taxation such as “*Tax killer polluters instead of the organic label!*“ (Fb/T1/18). It should be noted that it is particularly perceived as unjust that the industrial

agriculture which causes more pollution than organic agriculture, receives exemptions, while the organic agriculture receives only limited governmental support. Second, it is advocated to recognize farmers in particular through their elaborated responsibility in “*food production, preservation and restoration of nature and landscape, protection of public health*“ (NC/T2/97). Third, although the perception about the redistribution of tax revenue, similar to the distribution of policy burdens between sectors, is not uniformly perceived, investments in the research of agriculture technology and in support of organic agriculture are trending. For instance to “*Invest in research for a more respectful agriculture of tomorrow and offer training to farmers.*“ (CCC/T3/25).

This perspective is influenced by three factors. Farmers are assigned climate responsibility due to their high emissions by stating that “*individual consumption is still a drop in the bucket compared to industrial production, industrial agriculture and livestock farming*“ (NC/T2/116). Connected to that the socio-environmental motivation i.e. to couple pro-environmental and pro-social behavior is reflected in the perception of the farmers’ occupation that touches upon both social and environmental aspects e.g. “*We must ask the government to put in place an ambitious policy of financial support for farmers who wish to convert to organic and peasant agriculture, so that they can make the transition under good conditions*“ (CCC/T3/22). Additionally, the self-perception toward agriculture can be found in multiple patterns (*common cause, redistribution of tax revenue to agricultural sector*). This self-perception is defined by the public understanding of the farmers as belonging to the country expressed by e.g. “*Let's save the French farmers...The unity will allow us to win*“ (T2/Fb/23) or by “*our farmers live as well as possible*“ (Fb/T2/23). This factor can be seen as separate that is not directly linked to the latter factors, yet it directly influences the perceived redistributive aspect of granting more policy benefits to sustainable agriculture, as a consequence of the perceived importance of the sector as such.

6.1.3. Mobility

The third causal perspective deals with the influence of the perceived mobility issues of especially rural households on the justice perceptions of climate policy (*Figure 9*). It highlights that rural households are perceived to be among those strongest affected by climate policy measures.

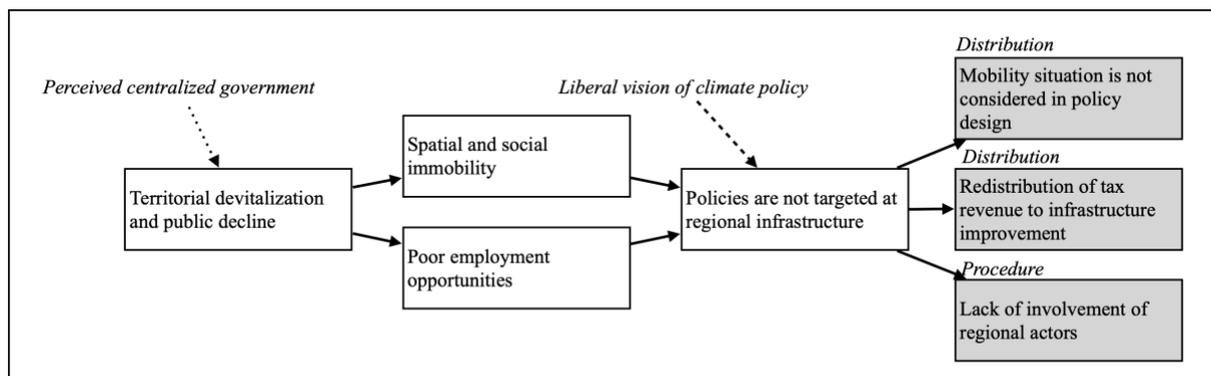


Figure 9. Causal perspective 3: Mobility

In the perception of the distribution of policy burdens between households, it is particularly perceived as unjust that rural households are disproportionately impacted by the carbon tax because of two reasons. Rural households rely stronger on their private vehicle than urban households as the public transport system is deficient “*rural households, which have little access to public transport, are especially targeted*” (PD/2017/20) and they are not able to use sustainable modes of transport such as electric cars due to the unequipped rural transport infrastructure. Another perceived distributional effect concerns the redistribution of tax revenue to improve the rural infrastructure e.g. “*to completely revise the public transport policy in rural areas*” (Fb/T1/25), so that “*public transport can compete with cars*” (NC/T2/50). Climate policy would be also perceived as more just when it would be specifically adapted to the regional situation and thus would enhance procedural inclusiveness “*a lot of plans are made and decisions are made at the state level and lose their meaning or are inappropriate when they get to the local level*” (CCC/T3/32).

The following four factors are central in influencing the formation of the justice perception of the mobility situation in rural areas within climate policy. Independent of the political decentralization reform (Thoenig, 2005) and with that the fading reinforcement of state roles, the perception persists that territories are still governed by the centralized national state. As a consequence, territories suffer from reforms of devitalization, leading to public decline to the detriment of rural France. This development can be linked to two perceived situational factors: First, it condemns rural households to spatial and social immobility “*excluded from the social link and the public space*” (Fb/T1/40) that result in “*citizens feeling left out*” (PD/T1/33). Second, rural households suffer from limited employment opportunities in the devitalized territories. On top of this, the liberal climate policy is perceived as inadequate to improve the rural infrastructure, as only improvements of the urban public transport are targeted.

6.1.4. *Interrelations of causal perspectives*

In view of justice perceptions in this group, aspects of distribution and recognition dominate. The distributional aspects all reflect that the policy burdens are perceived as too high because arguably the specific situation of certain social groups is not recognized in climate policy in the first place. For instance, policy burdens are perceived to disproportionately affect poor and low-income, and rural households, as well as organic farmers, while the industrial agriculture is exempt. Hence, one could suggest that in this perspective, the perceived injustices around distribution can be ascribed to a lack of recognition of group difference.

6.2. Group 2: Who is held accountable for the injustices?

The second group of perspectives guided by the question *who is held accountable for the injustices?* explains the relationship between the perceived accountability of political authorities and perceptions of injustice with regard to climate policy measures. Those who are most affected by different policy measures see the causes of these perceived injustices within the political system and its representatives as such, as well as in its ability to provide socially just solutions, also in the international context. Accordingly, the causal perspectives explain that elite structures, manipulated politicians and France's position in international climate policy as political authority are held accountable for an unjust climate policy that deviates from the norms of the YV that aligns social and environmental aspects.

6.2.1. *Value orientation in climate policy*

The fourth causal perspective refers to the perception that elites as the ruling political class are held accountable for following an agenda in climate policy, which does not comply with both pro-social and pro-environmental motivations (*Figure 10*). It highlights that the value orientation of climate policy is colored by the predominately economic interest of elites. This contributes to the perception that the government entrenched by elites and their values does not pursue a just climate policy that improves both the quality of peoples' life and the state of the environment. Thereby, the confidence in political institutions in climate governance declines even more, resulting in injustice perceptions.

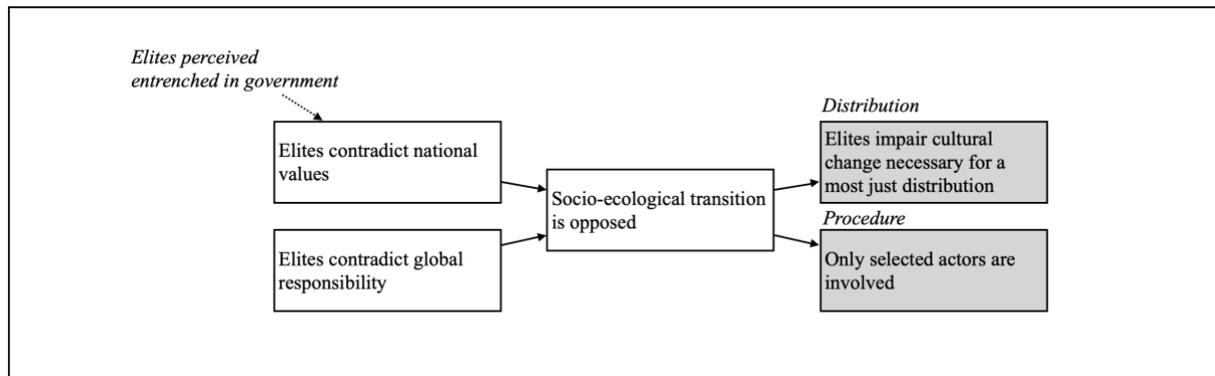


Figure 10. Causal perspective 4: Value orientation in climate policy

Two justice aspects are particularly significant in this perspective. The elites that are perceived as entrenched in the government (Jetten et al., 2020) are considered by many as main polluters, expressing on top their values in an extravagant lifestyle “*It's not up to us, the middle class, to always finance everything, while the upper class lives in indecent opulence*“ (Fb/T1/109). Therefore, it is proposed in order to limit the polluting activities of this extravagant to abolish governmental support of these activities. Moreover, these activities are perceived as outdated in the sustainability transition and this being part of a cultural change that is seen as essential. As a second aspect, it is felt to be particularly unjust that only certain actors are represented in decision-making, since the dominance of elites means that principles of social and ecological sustainability are disregarded, where “*ecology to money*“ (Fb/T2/2) is sacrificed and “*the working classes must be able to take part in this transition*“ (PD/2017/29).

Three factors play a key role in the formation of this perspective. As already discussed, the perception of a strong economic divide is mainly driven by the perception that elites as being main beneficiaries of the economic structures in France including a certain lifestyle are seen as main polluters or as those “*who screw up the planet and human beings for their sole profit*“ (Fb/T2/6). This aspect reinforces the separation of the YV from the elites and is further exacerbated by the perception that in the eyes of the YV, the elites represent a worldview that is considered as not typically French. This means that the French connoted value of equality is in conflict with the elites who, according to statements, are instrumental in driving the gap between the rich and poor apart.

Similarly, the elites contradict the widely shared view that, in the spirit of cosmopolitanism, all individuals bear responsibility in tackling the climate crisis instead of pursuing exclusive activities with “*a catastrophic carbon footprint*“ (CCC/T3/9). These three factors contribute to the perception that elites are driven by neither environmentally nor socially sustainable motives,

which many see as indispensable to effectively enabling a transition. Consequently, it gives reason to radically change the political system and draw back elites' influence as a just measure.

6.2.2. *Distrust in government*

The fifth causal perspective refers to the perception that elites dominate the government and thus undermine how climate policy is made with consequences for distributive and procedural justice (*Figure 11*). This perspective highlights that general distrust in government and the lack thereof to feel adequately represented by electives is projected onto the political system and thereby contributes to perceiving how climate policy is made as such as illegitimate and unjust. Thereby, the government is hold accountable for fostering an unjust decision-making process per se.

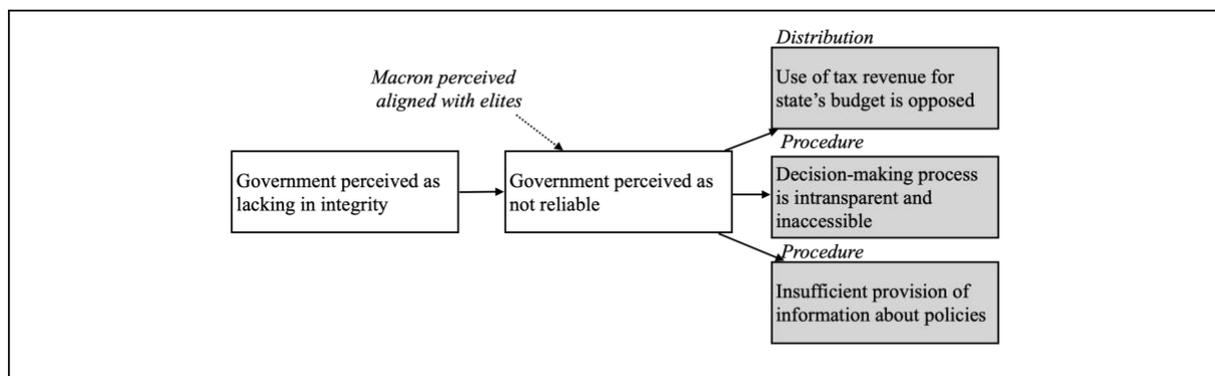


Figure 11. Causal perspective 5: Distrust in government

In general, it is perceived as unjust by many that the revenues from the carbon tax “*simply feed the state budget*“ (PD/T1/12) and that there is a lack of knowledge about how exactly the revenues are used “*what happens to our taxes ... because not sure where they go* “ (sic) (Fb/T1/44). This implies that the information provision of the government regarding carbon pricing is insufficient. At the same time, the decision-making process is perceived as intransparent and inaccessible.

General distrust in government is perceived by many, characterized by the government being perceived as lacking integrity and, as a consequence, governmental decisions and actions are seen as unreliable. The general distrust in the government is primarily borne out by the fact that the government is seen as infiltrated by elites. As head of state, Macron who is perceived as aligned with the elites by the YV “*only the rich can understand him*“ (Fb/T3/14), reinforces this distrust. In this perspective, it becomes clear that the distrust in government casts doubt on the democratic system itself, and consequently, in addition to the consideration of

environmental and social aspects, democratic aspects are also relevant for a successful sustainability transition according to the YV.

6.2.3. *International climate policy*

The sixth causal perspective refers to the perceived role of France in international climate policy with consequences for distributive and procedural justice (*Figure 12*). It highlights that the government is held accountable to allow that climate policy measures of other countries are less ambitious in comparison to the French measures e.g. by levying lower carbon prices than France. Consequently, domestic competitiveness and reaching climate goals is hampered, leading to perceptions of injustice.

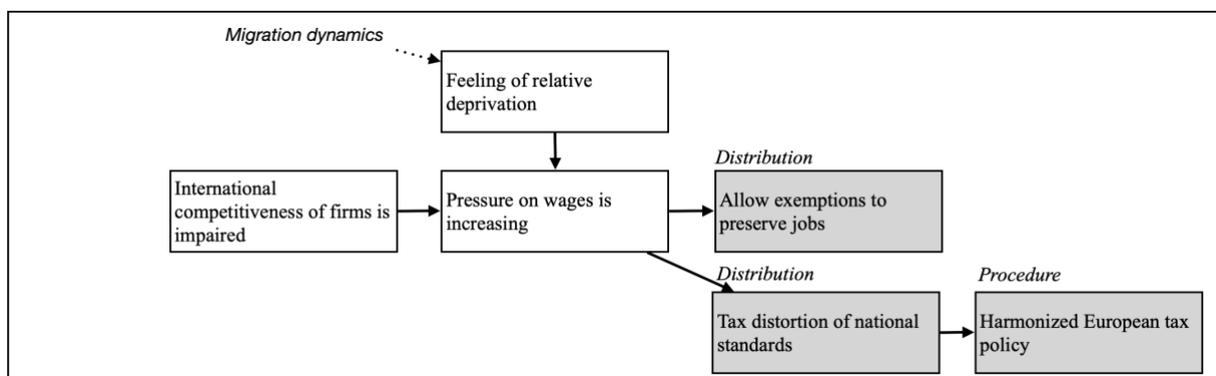


Figure 12. Causal perspective 6: International climate policy

Conversely to the perception that industrial sectors are too strongly exempt from policy burdens, some justify the exemptions of certain sectors such as the naval sector in light of otherwise eroding international competitiveness and the loss of jobs and thus plead “to support the industry” (PD/2017/7). Following this reasoning, the distribution of policy burdens would be perceived as more just when certain sectors received less burdens. A second distributional effect concerns the tax distortion of national standards. As foreign carbon taxes are presumed to be lower, the distribution of the policy burdens among countries is perceived as unjust. Consequently, to reduce the imbalance of tax burdens between countries it is suggested to harmonize the environmental tax policy at the European level (Fb/T1/96) or to implement a “European climate finance pact” (Fb/T1/32) that would assure sustainable and large-scale financing.

This perspective is formed by three factors. Tax inequality on the international level is described to impair international competitiveness of firms and therefore puts pressure on wages and threatens jobs, expressed by e.g. “Stop the injustice, economic violence...on fragile workers” (sic) (Fb/T2/1). The pressure on workers is also exacerbated by the feeling of being

deprived of economic resources to which one believes to be entitled. These feelings of relative deprivation are especially perceived toward France's migration dynamics as stated by e.g. *"migrants will replace them and they will cost much less"* (Fb/T2/38).

6.2.4. *Interrelations of causal perspectives*

In this group of causal perspectives perceived procedural and distributional aspects prevailed. These aspects interrelate to some extent. The distribution of policy burdens is predominately perceived as means to enrich the elites at the expense of low-income households. Similarly, in perceived procedural aspects the dominance of elites is described. Since only selected actors (elites with their assumed values of solely economic orientation) are perceived to be involved in decision-making processes, representation of a significant part of France's citizens is seen as insufficient and excluding. Distrust in government is related to the perception that politicians are seen as part of those elites and consequently built up a system favoring members of their reference group.

To protect this complicity and to cover incompetencies in their policy design and in denying the necessity of integrating others in the political process, the French government has built up communication structures. In turn, these new structures are strongly criticized as intransparent. This aspect is interrelated with the perception that the redistribution of tax revenue to feed the state's budget is only seen as pretext for further enrichment of the elites given that it is not clear to many how exactly the tax revenue is invested. Considering the overall extent of these activities, this again can only be seen as a symbolic perspective. Furthermore, the perception that only certain actors are included in decision-making processes leads to the perception that certain leisure sectors should no longer receive exemptions due to their strong pollution as they are fundamentally incompatible with environmental sustainability and only serve the questionable needs of the elites.

At the level of international climate policy, the tax distortion of national standards is likewise seen as means of enrichment of other countries, since they are subjected to lower taxes, which is in turn perceived to be disadvantageous for France in terms of international competitiveness. Therefore, to overcome the tax inequality, certain sectors should be granted exemptions taking into account this way that households and other sectors would thus receiver higher policy burdens. Introducing a harmonized tax policy is seen as second option to overcome the tax inequality and distribute the policy burden more just among countries.

6.3. Group 3: How is responsibility assigned for a just climate policy?

The third group guided by the question of *how is responsibility assigned for a just climate policy?* explains the relationship between the self-image of the YV of socio-ecology and a just climate policy. As a counterpart to the initially only economic perspectives of the tax burden, another identification pattern of the YV is built around the topic of climate policy responsibility. Seeing the political system as fundamentally flawed and stressing the own affectedness imposed by policy burdens challenges the question of a specific responsibility for climate-relevant behavior and for political engagement.

6.3.1. Individual responsibility

The seventh causal perspective concerns the perception of how moral responsibility is assigned to the citizen and the individual to redress climate change either through individual behavior change or participating in the political process (*Figure 13*). This self-assignment of responsibility stems from a fundamental critique of market-based environmentalism embedded in climate policy that in the eyes of the YV cannot effectively address related social aspects.

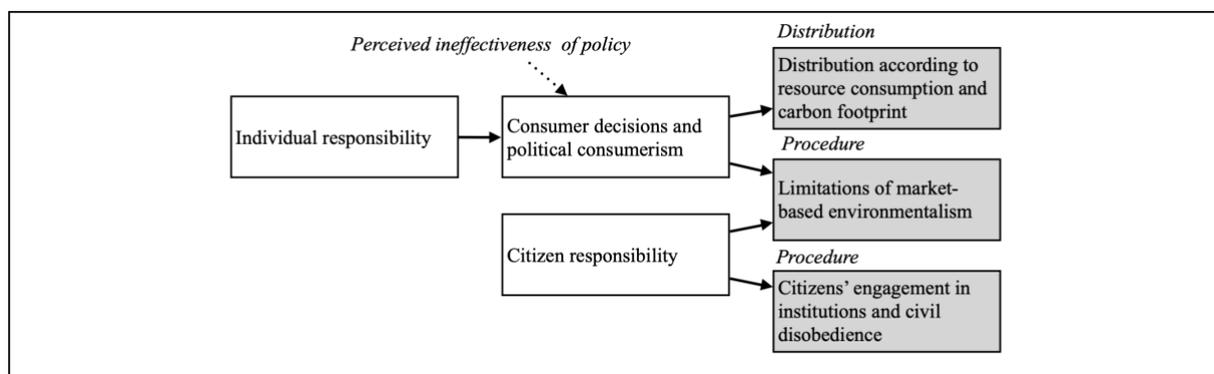


Figure 13. Causal perspective 7: Individual responsibility

This perspective is characterized by three aspects. Interestingly, in the perceived distribution of policy burdens according to the pollution level, the emphasis is set on policy measures that would stimulate the behavioral change of individuals and firms. Policy measures are proposed that would distribute policy burdens according to one's resource consumption "impose a maximum heating level beyond which we pay a surtax" (CCC/T3/16) and carbon footprint "limit CO₂ emissions per citizen / per company by imposing annual quotas not to be exceeded" (NC/T2/31). The second aspect is characterized by perceived distrust in markets. Specifically, the prevalence of market-based environmentalism is perceived as contradictory to enable the ecological transition as "ecology to money" (Fb/T2/2) would be sacrificed. Therefore, economic institutions are perceived as being too dominant.

These two aspects are influenced on the one hand by the consumer decisions and political consumerism, which can be traced back to the factor individual responsibility and on the other hand to the factor citizen responsibility. The moral responsibility as individual to act in view of the climate crisis “*Today we all know the climate issues, we don't have the right to continue to ignore the state of our planet.*“ (NC/T2/92) can be interpreted as a motive to behave pro-environmentally. The perceived ineffectiveness of policy, which is reflected in the widespread distrust in government, moderates the motivation to use consumer decisions and political consumerism to control the behavior of companies more effectively in comparison to policies.

The factor citizens' responsibility is characterized by the self-image of *ecological virtues* embedded in responsible citizenship, such as nature protection and influences the two perceived procedural aspects, namely limitations of market-based environmentalism and citizens' engagement. This can be interpreted that the idea of citizenship and the fundamental distrust in markets is linked to the question of how citizens can participate in decision-making processes. The causality is at the same characterized by a skeptical view on economic interests and hence a broad number of exemptions.

The third aspect refers to citizens' engagement in decision-making processes. Generally, citizens' engagement as one of the key demands of the YV, is reflected in various patterns, yet the understanding of what a just participation entails varies throughout the statements. While some citizens favor an institutionalized form of citizens' engagement through referendums, commissions or collectives, others favor protests. This is reflected by statements like “*all these people are fighting for us so let's support them and whenever possible let's increase the ranks*“ (Fb/T2/7) but also by the mere fact that the YV are a protest movement. Acts of civil disobedience such as the blocking of roads are also seen as appropriate form of citizens' engagement by some YV protestors (Jetten et al., 2020), yet this evidence is not supported by the empirical data.

6.3.2. *Polluter responsibility*

The eighth causal perspective addresses the fact that the diversity of views regarding the causation of emissions gives rise to a diversity of considerations regarding the just distribution of policy burdens and benefits (*Figure 14*). It highlights that the creation of an environmental organization and the support of environmental projects that is widely shared in the perceptions can be interpreted as assigning responsibility for climate mitigation to institutions based on the unclear perception of who is responsible to cause these climate effects in the first place.

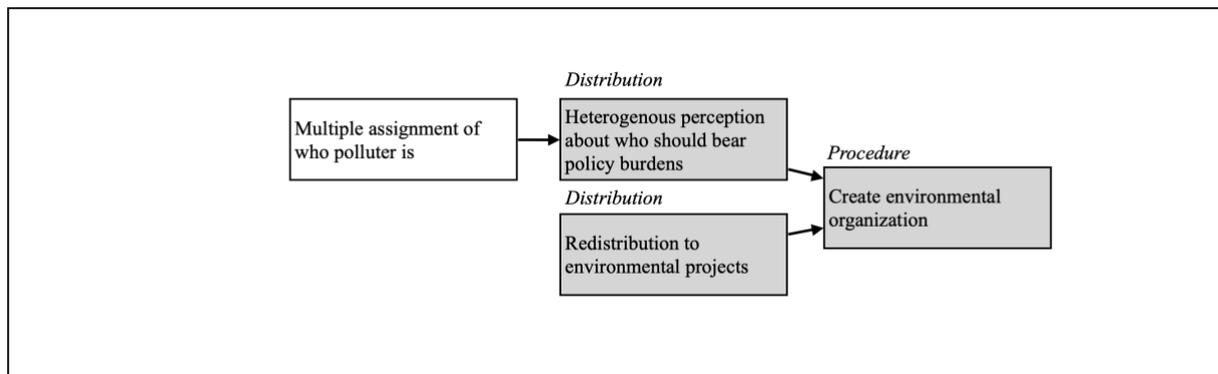


Figure 14. Causal perspective 8: Polluter responsibility

As already discussed before there is no uniform perception about the allocation of policy burdens, as reflected especially in the heterogeneous assignment of burdens to various industrial sectors, to high-income households, and to other countries. At the same time many share the perception to redistribute tax revenue to environmental projects, e.g. “*let the fuel taxes be reinjected by at least half in the energy transition*“ (Fb/T1/29).

These aspects are influenced by one factor. The heterogeneous assignment of burdens is influenced by the undifferentiated assignment of the polluter. In other words, since there is disagreement about who the polluter is, it is unclear who should be the target groups for policy burdens and benefits of a just climate policy. Obviously, there is a need in future’s climate policy to deal far more effectively with the allocation of burdens and benefits. So together these two perceptions stress the introduction of an environmental organization which would allow a stronger integration of climate-relevant aspects into policy and firms.

6.3.3. Stakeholder responsibility

The ninth causal perspective concerns the perception of a lack of recognition of the rights of nature and future generations based on feeling responsible as global citizen and present generation (Figure 15). At the same time, a stronger involvement of France in international climate policy is perceived as just. It highlights the self-image of assigning responsibility to present generations and cosmopolitan citizens to protect the rights of future generations and nature in its own right. Thereby, the perceived lack of recognition of these two actor groups stands in sharp contrast to the YV self-image and is thus perceived as unjust.

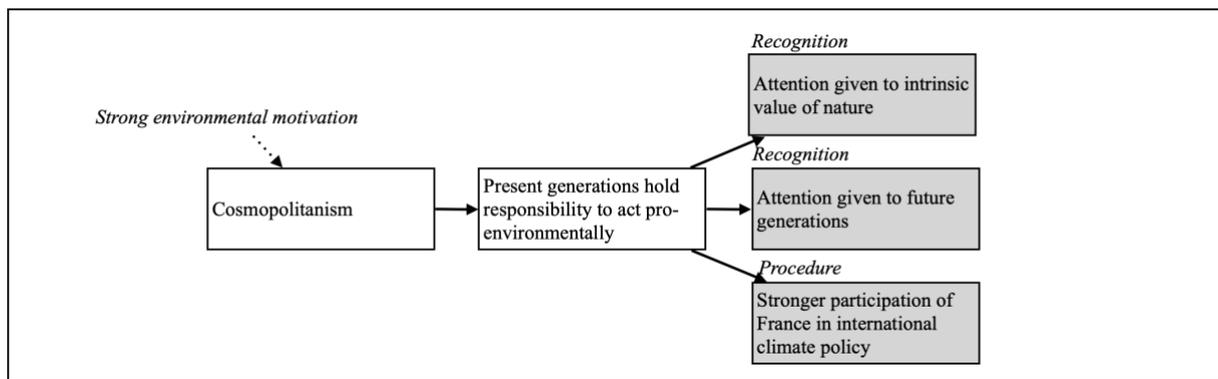


Figure 15. Causal perspective 9: Stakeholder responsibility

The causal perspective *stakeholder responsibility* comprises three justice perceptions. It concerns who is entitled to consider the context of a just climate policy. Nature in its own right as well as future generations are perceived as underrecognized in today's climate policy. Furthermore, stronger international cooperation is mentioned in terms of building planetary stewardship “to advance this issue together“ (NC/T2/119).

Two factors contribute to the justice perception in this perspective. The majority of statements carry strong environmental motivation that directly influences the global responsibility and can be seen as a precondition to the idea that everyone is responsible to protect nature. What follows in this reasoning is that present generations are assigned responsibility to take climate action in view of inter- and intragenerational justice.

6.3.4. *Interrelations of causal perspectives*

In the responsibility perspectives, it can be observed that procedural aspects dominate in all relations. Interestingly, all the perspectives underlie the assignment of responsibility although the definition of the subjects of justice differs. In the *individual responsibility* perspective, to become engaged as citizen in decision-making processes is built on two assumptions that refer to responsibility. The first one lies in the self-conception of citizenship as active stakeholder in the political process as such. The second one is based on the assignment of responsibility to the individual to become pro-environmentally active by e.g. consumer decisions because arguably market-based instruments alone fall short in coping with climate issues.

Given that there is widespread agreement on the polluter-pays principle, viewpoints of which polluter should be imposed burdens are heterogeneous, therefore it is seen as necessary to institutionally reinforce the polluter-pays principle by an environmental organization. Likewise, being globally responsible means that France must play a stronger role in international climate policy e.g. to “help poor countries“ (NC/T2/120).

Within the responsibility perspectives, another interesting finding concerns the distributional effects that are present in the perspectives of individual and polluter responsibility. In both perspectives, distribution is defined according to pollution causation, either through the polluter-pays principle or the carbon footprint of any individual. This indicates that many perceive that there is a need to stronger consider distributional effects on one hand. On the other hand, the statements emphasize that these distributional injustices can be tackled through stronger participation.

CHAPTER 7. DISCUSSION

In this section, I summarize and discuss the main empirical findings, relate them to literature, and formulate implications for practice (7.1.). Next, I address the limitations and weaknesses of this thesis (7.2.).

7.1. Reflection on findings

The qualitative evidence of this thesis confirms prior findings in the literature and provides some new theoretical insights. The consideration of justice perceptions influenced by individual perceiver factors combined with situational factors (Hegtvedt, 2006) provides two conceptual contributions to the understanding of perceived justice of climate policy with consequences for the policy acceptance.

First, the incorporation of how perceptions are shaped in the first place by identifying patterns allows to some extent a more specific analysis of distributional, procedural and recognitional aspects and their relatedness (7.1.1.). Second, the analysis of causal perspectives furthers the understanding of how factors interact and in combination shape characteristic specifications of justice perceptions (7.1.2.).

7.1.1. *Reflection on patterns of justice perceptions*

Overall, distributional justice effects prevail in the perceptions in terms of frequency, followed by procedural and lastly recognitional aspects. It could be argued that this weighting in perceptions is not surprising, when considering that the starting point of protests was the demand for an immediate change in the distribution of policy burdens and benefits of the carbon tax. Perceiving the injustices of climate policy outcomes results in a critical view on the justice of the political process itself, hence raises the question of a just participation and the recognition of all those who are entitled to. This mirrors Lind and Tyler's (1988) account that the perceived justice of a governmental decision does not predominately depend on the outcome but rather whether the decision-making process is viewed as just.

Distributive justice

In the analysis of distributional effects, especially the expected heterogeneity of perceptions could be observed, such as in the multitude of sectors that are mentioned to be the crucial polluters and to be given exemptions. Not only the allocation of policy burdens is reflected in the perceptions, but also the question of to whom policy benefits are distributed is paramount. In fact, immediate considerations of redistribution effects are broadly found in the statements.

These findings are in line with literature on perceived fairness of and policy acceptance for carbon pricing (e.g. Carattini et al., 2017; Clinch & Dunne, 2006). Surprisingly, in the perception of the distribution of policy burdens between firms and households the adaptability to climate policy in terms of implementation time is stressed. Firms are perceived to receive unjust longer implementation times than households. This finding is unexpected since mostly the costs of this distributive effect of the regressive instrument for the two groups are perceived (e.g. Clinch & Dunne, 2006; Owen, Edgar, Prince, & Doble, 2008).

Interestingly, the groups that are perceived as strongest affected by distributional effects are viewed as those that should be granted policy benefits through redistribution of revenues. For instance, investments into the transport infrastructure in rural areas as households are especially penalized by the carbon tax due to their transport dependency. Earmarking tax revenues for financing the public transport is likewise found as key factor in increasing policy support by Sælen and Kallbekken (2011).

Furthermore, the perceived governmental motive to treat the tax proceeds as general state's revenue is mistrusted, as the redistribution of proceeds is not clearly specified, hence it is perceived as unjust. Therefore, in order to compensate low-income households and reduce the regressive effects of the tax, social cushioning measures such as the implementation of eco-vouchers for the poorest are mentioned as a more just redistributive effect. This strategy is discussed as one of the most preferred approaches by citizens for revenue recycling next to compensations via lump-sum transfers to make the outcome more progressive and more socially acceptable (Carl & Fedor, 2016; Sælen & Kallbekken, 2011).

Procedural justice

What prevails in almost exclusively all procedural aspects is the perception that citizens cannot fully participate in decision-making processes because these are perceived as dominated by economically oriented actors, specifically elites and lobby groups. Therefore, the decision-making process per se is perceived as unjust.

Procedural aspects such as the *inclusion of relevant stakeholders*, *access to* and *citizens' engagement in decision-making processes* are all reflected in the perceptions and are in line with empirical studies (Carattini et al., 2017; Maestre-Andrés et al., 2019). Concerning the inclusion of relevant stakeholders one interesting trend emerges: overall citizens representation is perceived as insufficiently, illustrated by the patterns *involvement of citizens* and *multi-actor involvement*. This finding is not really surprising in light of the increasing promotion of the participation of non-state actors in environmental decision-making following current political

trends (Newig & Fritsch, 2009) and when taking into account that generally the consideration of diverse needs and values most likely increases the perception of an environmental decision as just (Reed, 2008). At the same time, what dominates in the perceptions is the preference for a central body to coordinate domestic and international climate policy, presented by the patterns *environmental organization* and *international organization*, which also is not surprising given that the level and spatial scale of governance is increasingly discussed to be adapted to that of environmental problems (Newig & Fritsch, 2009) and perceived as just mitigation strategy to equal burden-sharing (Klinsky & Dowlatabadi, 2009).

Inductively derived is the *representation of economic institutions* and *representation of social groups*. One could argue that the perceived overrepresentation of economic institutions is no surprise given that the focus of the YV claims evolves around economic justice (Lem, 2020). The pattern of *lobbyism* weighs strong in terms of frequency with 16 statements. From a theoretical point of view it could be said that the patterns of procedural justice bring close that it is perceived as unjust that one social group i.e. *elites* dominate the political process and thereby push back the inclusion of especially citizens and their opportunities to participate.

Recognition justice

In the analysis of recognition justice, the *recognition of economic vulnerable groups* is especially perceived as inadequate in climate policy. It becomes evident that those perceived as not recognized are those who are most factually affected by policy burdens, meaning those whose existence is threatened by an increase in fuel prices i.e. poor households. It is perceived that it is beyond the imagination of current climate policy that it is a matter of *life in dignity* to recognize these groups for whom the policy burdens compound the struggle to make ends meet at the end of the month. As commonly stated by YV protestors “*elites are talking about the end of the world, we are talking about the end of the month*” (Rérolle, 2018). Arguably, this perception could be described as an example of Fraser's (1998) misrecognition, meaning that the perspectives of these economic vulnerable groups is distorted in the debate about climate policy by e.g. claiming that an increase in fuel prices would only have a marginal effect on households' budgets.

This solely economic perspective is key in understanding the perception that future generations and nature are unrecognized in climate policy since they do not hold *instrumental value* for society. Even in perceptions where *instrumental value* is mentioned, it refers to something vital - the provision of nutrition by nature, in other words the fulfillment of basic needs. Surprisingly, future generations are deemed to be recognized not only in terms of

intergenerational justice i.e. acknowledging that the actions of present generations might compromise their *standard of living*, but also in terms of *abilities*. Supporting today's youngsters who will later be part of the future generation to build *abilities* so that they can live in a future without being compromised, acknowledges not only an intergenerational perspective but directly links the two generations.

7.1.2. Reflection on causal perspectives

Nine causal perspectives are identified and condensed into three groups. In this section, the findings of each group are discussed and fed back into literature. Although the identified causal perspectives are specific to the empirical case of the YV, all perspectives reveal findings that can be transferred to similar contexts.

Overall, individual and group differences among the YV that are rooted in one's background and experiences manifest themselves in the justice perceptions of climate policy. Clayton and Opotow (2003) argue along the same line. Collectively shared among all YV supporters is the perception that climate policy matters, but it requires looking beyond the economic orthodoxy of a fiscal instrument to tax climate externalities whatever their social cost. This normative component of justice is reflected in the variety of all perceived distributional, procedural and recognitional aspects.

Surprisingly, all perspectives illustrate that the necessity of climate mitigation policies is not questioned, in fact it is actually carried outward within a certain self-conception. This becomes evident in statements referring to the *belief in effectiveness of policy* and in the *polluter-pays principle*, in which carbon taxation is believed to lead to a reduction in emissions. This finding extends Douenne & Fabre's (2020b) point that YV supporters instinctively oppose any carbon tax by specifying that while they initially might reject the instrument, they do not perceive it as ultimately ineffective and unjust. Often misperceptions about the policy's effectiveness can be a dominant factor in policy support (Carattini, Carvalho, & Fankhauser, 2018), yet this could not be supported by empirical evidence in this case. Instead, individuals' objections against the instrument concern the justice implications of the policy design, which is according to Dresner, Dunne, Clinch and Beuermann (2006) a common perception that hampers policy acceptability and in the YV case could be associated with one's beliefs that shape the justice perceptions.

Group 1: Who is affected by the injustices?

The three causal perspectives of this group show that especially low-income and rural households are perceived to be entitled to be given more attention in climate policy in terms of distribution and recognition. The self-perception of the YV as a confluence of different

economic vulnerable groups distinguishes its own identity especially from the criticized elites and claims to represent the ‘*real*’ France. The factor *collective identity* is inductively derived and accounts for the group identity of the YV that is colored by *common cause*, *citizenship* and *us vs. them categorization*. This view is also echoed by Jetten et al.'s (2020) who state “the shared outcry over rising inequality created a stronger superordinate identity, whereby differences between subgroups become (temporarily at least) unimportant and the focus is on the shared collective cause“ (p.7).

Therefore, strong feelings of injustice are articulated in especially the perceived lack of recognition of this identity. These findings would most likely have been discovered in the application of non-perceptual EJ theory, in which recognition is often conceptualized in regard to recognizing group identity and cultural difference based on Fraser's (1995) theory of justice (e.g. Temper, 2019). Nonetheless, the application of perceptual EJ theory reveals that the question of perceiving or identifying oneself as part of a social group is crucial for both distributive and recognition justice. The three perspectives deliver insights into how the *regressive incidence* of the carbon tax and the definition of *vulnerability* matter for the perceptions of justice and thus challenge policy designs.

The situational factor *income distribution* that is deductively derived is empirically confirmed and is key in the understanding of how based on strong income inequalities the group of low-income households crystallizes itself within the YV (*economic inequality*). The situational factor *rural situation* is inductively derived and determines the economic situation of households. These two perspectives illustrate that the regressive incidence of the carbon tax is broadly perceived as unjust, as it disproportionately affects low-income and rural households when it does not contain counterbalancing measures, which is described in some studies to decrease policy acceptability (e.g. Owen, Edgar, Prince, & Doble, 2008).

It is not surprising in this regard that rural households are mentioned given that the carbon tax can be brought in direct association with those who are forced to travel by car and hence most likely have a higher fuel consumption than those living in urban areas. Yet, since the influencing situational factor of not having access to suitable public transportation is key in this perception, it could be speculated whether individuals perceive this effect based on a needs-based principle, meaning it is perceived as just that individuals who need their car the least should be given opportunities to reduce their emissions more than others. Perceiving impacts of carbon taxation as unjust could also follow judgements on the distribution according to equality-based and equity-based principles. Nonetheless, the position of the YV that the carbon tax hike is unjust is founded on the idea of equality confirms the principle.

At the same time, the widespread belief in the *polluter-pays principle*, which is inductively identified as influencing factor, would justify the preference of equity-based principles. Hammar and Jagers (2007) note in this regard that automobile users and non-automobile users should be treated separately since the preferences for principles toward carbon taxation increases differs significantly. Therefore, this hypothesized aspect would need further scrutinization. Consequently, the results of this study suggest that policymakers could consider which principles individuals favor in the perception of distributional effects to be able to assess their reaction. This implication needs to be seen in relation to the following points, as only assessing individual justice perceptions of distributional effects would not guarantee public support.

It is worth mentioning when it comes to the personal affectedness that the topic of justice is projected onto the political system in France, which is being criticized, as the cause of these inequities of policy burdens (see Group 2). The perceived strong economic inequality and regressive distributional impacts that are displayed by carbon pricing are felt strongest by those making ends meet. What is underlying the perceived injustice in this regard, is distrust in government. Characterized by lack in integrity and reliability, individuals revealed that if not redistributed back to citizens or specifically earmarked, the government is not to be trusted to appropriately use the revenues. Carattini et al. (2018) argue that distrust in government is reflected as key concern for earmarking, as it is signals that investments are being made in low-carbon research that in turn could benefit citizens to minimize the costs of changing behavior when e.g. commercially viable low-carbon options are being developed.

Moreover, considering individual perceptions of justice helps to understand if and to what extent groups see themselves as vulnerable and what generally vulnerability constitutes for them, as also discussed by Young (2011) who states that there are different claims concerning what should be recognized. This goes hand in hand with Kompridis (2007) who argues that there is a need for subjective experience in defining recognition.

Operating the concept of recognition in practice, vulnerabilities concerning socio-economic status differences would probably be defined on someone's income, yet this analysis reveals that it plays a role how individuals assess their own situation. Consequently, it cannot be concluded that who is factually discriminated by climate policy will necessarily perceive it as unjust or just. This consideration of the normative component of justice in the *perception perspective* would have not been revealed through action-behavior perspectives. Judging what is just and unjust in terms of distribution on the basis on assumptions about the socio-economic status would have not illustrated that in fact rural households can also be seen as vulnerable.

Specifically, the mere consideration of only defining vulnerable groups on the basis of those who cannot make ends meet would have hindered the uncovering of situational factors such as spatial immobility in rural areas influencing how one perceives justice.

Once again, it becomes clear that *the perception perspective* is relevant in designing and communicating climate policies that make all voices feel heard. This implicates for practice that policymakers could acknowledge the importance of perceptions. Based on their socioeconomic background individuals can perceive and accordingly define themselves as vulnerable, in turn vulnerability cannot be defined based on factual affectedness. The first causal perspective demonstrates that the *income distribution* plays a key role in the perceived affectedness of climate policy. This would have not been obtained through socio-economic data since only factual injustice would be discernible this way. Without investigating perceptions e.g. effects of distributive justice could possibly be misjudged and as a consequence the public response could be underestimated. Effective public consultations could assist to discover these perceptions to formulate policies that consider aspects of vulnerability. Generally, this stresses as well that injustices in the form of not recognizing vulnerability in fact exist outside the specific context of climate change, which is also explicitly studied in research on climate and energy justice.

What appears as a surprising finding is that farmers of domestic agriculture are explicitly included in a wide range of perceptions, even though that they are partially exempt from the carbon tax (Chapter 4). As stated earlier, this perception could arise as especially farmers practicing sustainable agriculture as group are perceived to be treated unjust in climate policy e.g. through the assignment of too many policy burdens, in consideration of their elaborated responsibility in climate mitigation and adaptation, and food provision. It could also be argued that as overall climate change awareness is quite high among the individuals, the agriculture's vulnerability to changes in climate is rather stressed and thus a just climate policy would take this into account. Therefore, farmers account next to low-income and rural households as a group that is defined as vulnerable.

The deductively derived factor *belief in climate change* is eliminated since it is inclusively reflected in all statements, this goes hand in hand with Douenne and Fabre's (2020b) finding that the disbelief in climate change among French citizens is marginal (4%).

Similarly, *material self-interest* as factor is singled out, as it is not reflected in the empirical data. This suggests that, conversely to the assumption made in Chapter 2, that the rise in fuel prices could be perceived as limitation in freedom of choice because the high automobile dependency among protestors gives individuals no other option to restrict their car usage, does

not reflect as *material self-interest*. Instead, the *inadequate transport infrastructure* and *limited employment opportunities* are stated as roots of the problems for the high automobile dependency and hence the injustice perception can be drawn back to the given *rural situation*.

Group 2: Who is held accountable for the injustices?

The analysis of the causal perspectives 4-6 shows that the anomalies of the French political system are causative for the perceived injustices of climate policy. The political system and its representatives - entangled in the elite structures of the French society - is held to be accountable both for the economic situation of the poor, which corresponds with the perspectives *economic inequality* and *mobility situation* and the additional distributional injustice effects of the climate policy and the question whether the French government will be able to design an efficient and just climate policy. Trust in government conditioned by the perceived overrepresentation and infiltration of elites in political and economic spheres, therefore should not be seen as just another single factor next to others but as the main problem of French politics. The two perspectives deliver insights into how the framing of climate policy including the production of *misperceptions*, *trust in government*, and the feeling of *relative deprivation* influence the perceptions of justice.

As identified in the perceptions of recognitional injustices the framing of any issue of climate change in policy and policy measures by the incumbent government is a key driver in influencing perceptions. It becomes evident that in the perspective of *value orientation in climate policy* that elites dominate with their economic orientation how climate policy is made and thereby are perceived to impair the ecological transition. Hence, the climate policy per se is perceived to not comply with the value system of the YV, given that the current framing of the carbon tax is perceived as a liberal marketing strategy that sidelines social aspects. Therefore, it could be suggested that a framing of climate policies that is free of ideological orientations could mitigate injustice perceptions. As noted by Levi (2021), already labelling carbon taxes as e.g. pollution reduction schemes could be helpful to reduce opposition. Not only bypassing ideological orientations in the framing of policies is suggested, but also communicating the actual costs to the individual in comparison to the alternatives and intended effects of the carbon tax, instead of only emphasizing the cost-effectiveness of the instrument (Hammar & Jagers, 2006). However, individuals need to first trust the government to letting it allow to shape their knowledge and consequently perceptions (Dietz, Dan, & Shwom, 2007).

The perception that elite structures are intertwined with the political system and its representatives is also reflected in the perceptions of procedural injustice. The perceived

overrepresentation of elites and connected to that of economic institutions that are argued to be subservient to the elites is intensified by *distrust in government* and contributed to the perception that non-elites groups are underrepresented in decision-making processes. The *perception perspective* allowed to uncover that in fact in the French context individuals' perceptions of climate policy are almost all shaped by the perceived structural division of society. The finding of this universal interdependency highlights that justice perceptions need to be investigated for their underlying factors by policymakers. This is necessary to fully understand how individuals not only perceive justice of climate policy, but ultimately how they make sense of the political and societal structures in which social, environmental and economic dimensions need to be regarded as mutually reinforcing and interdependent. Consequently, and on a more general note, this stresses the need for policy integration to address climate change in consistent sectoral decision-making (Adelle & Russel, 2013).

Arguably, it is important to note that the perceived dominance of elites in climate policy contributes to perceived distrust in government. This finding can be viewed as specific to the French context and has not been treated yet, to the author's knowledge, in literature on climate policy acceptance.

Trust in government is one of the identified key factors in influencing justice perceptions that is discovered with the help of the *perception perspective*. In studies of climate policy acceptance, *trust in government* is commonly conceptualized as aspect of procedural justice as such (e.g. Hammar & Jagers, 2006) or as contextual variable (e.g. Stern, 2000). Following this conceptualization, it would have not been uncovered that *trust in government* has an impact on all justice dimensions and not only on procedural aspects. Instruments to broaden the participation of the up to now not sufficiently recognized groups, therefore are considered by YV supporters as inappropriate or mere cosmetic "*masquerade and a travesty of Democracy*" (Fb/T2/26). Consequently, they will not work as intended. The lack of *trust in government* reinforces the perception that the decision-making process is inaccessible, intransparent and dominated by elites and their economic institutions, hence direct citizen participation is demanded to change decision-making processes. The heterogeneity of groups within the YV is perceived to be insufficiently represented, therefore participatory mechanisms from the local to the international level are seen as necessary to include the multitude of perspectives of all citizens and accordingly strengthen the perception of different identities that perceive themselves as unit in the political landscape. With the same arguments the demand for direct democracy via citizens' assemblies or referendums in climate policy is articulated, which itself is grounded on the ideas of socio-ecologically responsible citizenship.

Furthermore, the factor *trust in government* and the application of the *perception perspective* could specifically scrutinize the instinctively opposition and perceived injustices of the carbon tax in the empirical case. It can be argued that general perceptions of political institutions have an effect on the willingness to make economic sacrifices, therefore in the most general terms, those who distrust the government are less likely to be willing to sacrifice their economic resources for an increased fuel price, as argued by Harring (2014).

Therefore, it can be stressed that distrust in government and with that delegitimizing the current government actions could fundamentally assist in explaining the justice perceptions of climate policy (Tyler, 2000). Consequently, policymakers could work on citizens' trust e.g. through public participation which is argued to increase legitimacy (Ernst, 2019). In this regard, it does not come as surprise that the French government introduced the nationwide consultations and the CCC. Furthermore, policymakers could consider the importance of perceptions in the general population and trust in political institutions when aiming to introduce taxation policies. Carefully determined and analyzed schemes might not be supported by the public when the wider socio-economic context as well as trust in government that shapes justice perceptions and hence determine policy support are neglected, as also stressed by Kim, Schmöcker, Fujii and Noland (2013).

The *international climate policy* perspective suggests that against the backdrop of an uneven distributed policy burdens among countries, climate policy measures are perceived as economic threat because they hamper domestic competitiveness on the global market and consequently put pressure on wages. Perceived worry about competitiveness and job effects are commonly discussed in other studies, such as in the case of the Swiss energy tax where these two perceptions are described to have contributed to the rejection of the policy (Carattini et al., 2017). Yet, Thalmann (2004) who in the observation of the same effects argues that the likelihood of overestimating these effects is high. Connected to that it might be the case that the perceptions of justice of climate policy are subject to information asymmetries (Carattini et al., 2018) and therefore might be biased. This could explain why certain issues of climate policy are misperceived e.g. the fact that tax revenue is used as state budget would hinder the allocation to a both effective and ecologically just policy.

Moreover, misperceptions are exacerbated by feelings of *relative deprivation*. The *perception perspective* allows to shed light on this underlying effect, identified as situational factor, which explains that perceived injustice arises when individuals feel that there are worse off or unfairly treated after having made a social comparison between self and a comparison referent (Walker & Smith, 2012). One could argue that the feelings of relative deprivation could

be interpreted as threat to group identity (Walker, Leviston, Price, & Devine-Wright, 2015) by those whose job might erode because of an ambitious climate policy that puts pressure on firms to remain competitive. The likelihood is high that ‘those’ are members of the working class i.e. low income households, given the group composition of the YV, who pursue jobs that are at risk of being abolished such as truck drivers (Lem, 2020) through a more ambitious climate policy that would not exempt the related sectors.

These findings imply for practice that policymakers could transparently and holistically communicate the overall contexts of international climate policy including its social and economic effects so that misperceptions can be prevented and citizens are given the ability to correctly evaluate the risks of competitiveness to which they might be exposed through their job. Generally, policymakers should not tolerate information biases about policies and hence address them carefully by sharing extensive information about the policy. Above all, establishing sufficient levels of trust in government is the precondition to effectively communicate policies and legitimize governmental decisions.

Group 3: How is responsibility assigned for a just climate policy?

The analysis of the perspectives 7-9 shows that individuals who find themselves represented by the YV feel after all responsible for the climate situation and the associated social contexts, which leads to the demand for new political structures such as multi-actor involvement and direct democracy such as the citizens’ referendum. At the same time, out of this sense of responsibility a more ambitious climate policy is perceived as just, hence responsibility is also assigned to political institutions for the design and implementation of these policies. The three perspectives deliver insights into how feelings of responsibility influence the justice perceptions.

The assignment of responsibility, inductively derived as *belief in moral responsibility* and *belief in polluter- pays principle*, is found to be one of the key influencing factors of justice perceptions of distribution, procedure and recognition. Perceived responsibility for climate change mitigation is also identified by Stern (2000) in influencing pro-environmental behavior and seen as important predictor of pro-environmental commitments by many others (e.g. Kals & Russell, 2001; Kals, Syme, Kärcher, Müller, & Nancarrow, 2004). Levi (2021) specifies that the feeling of responsibility for trying to mitigate climate change as most important factor for “predicting public opposition to carbon taxes and attitudes on other climate change mitigation policies“ (p.2). Moreover, he suggests that responsibility manifests itself as moral obligation and moral cognition. In the three perspectives of Group 3 it becomes evident that individuals

not only comprehend but feel personally responsible for anthropogenic climate change, as illustrated by e.g. the *belief in the polluter-pays principle (polluter responsibility)* but also feel obliged to take climate action e.g. by *consumer decisions* and *political consumerism (individual responsibility)*.

Moreover, the belief in moral responsibility as base of climate action commitment as French citizen (*individual responsibility*) stresses the YV demand for universal participation processes that involve multiple citizen groups, actors and governmental levels to make different voices heard in decision-making processes. Within the YV it is perceived that the various groups are confronted with different needs and constraints as they are to a varying degree affected by the social, economic and ecological implications of climate policy. Therefore, the implementation of participatory and decentralized decision-making would be workable policy responses according to the YV. This perspective exemplifies that the YV seek to resolve perceived procedural injustices requires what Fraser (1995) calls transformative remedies, which in this case refers to restructuring the underlying political structure to correct unjust procedures.

These findings imply for practice that given the feeling of responsibility is a key factor in influencing justice perceptions and thus policy acceptability, it could be strengthened with measures. Specifically, the willingness to act and to become more engaged in decision-making processes of citizens could be supported. This may be achieved through forums where citizens are given the opportunity to voice their opinions and concerns, such as in participatory approaches. Furthermore, besides participating in the political process, effort could be made to communicate different ways how citizens could use own possibilities to redress climate change. Overall, environmental awareness of individuals could be sensitized through education, so that individuals can possibly develop a sense of responsibility that makes them not only understand the moral dimension of climate change but makes them feel obliged to act pro-environmentally.

Generally, policymakers could emphasize shared responsibilities in the communication of policy, so that justice perceptions can be positively influenced and policy support can increase. Reese and Jacob (2015) suggest that considering justice appraisals in climate policy as means to raise policy support also depends on the affected individuals and groups of this policy. For instance, focusing on intergenerational responsibility might increase acceptance among citizens with children. This view could also explain why in the *stakeholder responsibility* perspective appeals to *cosmopolitanism* contribute to expanding the moral circle of justice to future generations, nature and other countries, and consequently perceiving it as just to recognize these groups in climate policy. However, it is not further specified how this could be taken into account in climate policy-making. In practice it has not been delineated how these broader

understandings can be incorporated and operationalized (Schlosberg, 2007). Recognizing future generations in terms of both inter- and intragenerational justice and nature itself for its instrumental and intrinsic value can be seen as another layer of the collective identity of the YV that is highlighted in the causal perspective of *stakeholder responsibility*.

7.2. Limitations of the research

While this thesis successfully combines modelling of the socio-psychological justice process with EJ theory, in retrospect, it also uncovers inevitable limitations and weaknesses.

First and foremost, the present research conducts an in-depth case study, which allows to explore the phenomenon of the YV in the French climate policy context. It is important to remember that this thesis focuses exclusively on France and the YV, results would likely to vary in other countries. Especially, in association with the level of trust in government and in public institutions, this research suggests that perceptions of climate policies are country specific. Therefore, the findings are limited in external validity (Yin, 2011). For instance, elites seem to play a particularly important role in the perceptions of justice in France.

Second, in order to draw more valid conclusions from the analysis of justice perceptions a triangulation is applied (Verschuren & Doorewaard, 2010). This includes the integration of multiple data sources and different data types. These data sources are chosen to cover public and governmental stated data to allow an investigation of the perceptions of different groups and individuals. The point of saturation is defined on the criteria of data (i.e. was all data assigned?) and theoretical saturation (i.e. were all variables accounted for?) to increase internal validity of the results. Yet, it is not possible to establish direct causality between the perceiver and situational factors and the justice perceptions only basing the analysis on the statements. Hence, the established causalities based on thematic links of the data prove to be weak in reliability and validity. Gathering sufficient evidence for these causal links would require a different technical research design. Interviews could prove as viable method to measure the direct cause and effect of relations.

Likewise, the measurement of the perceiver and situational factors is straightforward but maybe limited. There are other important factors that shape justice perceptions such as political ideology and socio-demographic variables (Clayton, 2018) that could not be measured in the primary data. The data obtained at the three defined time spans to cover policy changes that are induced by the YV does not reveal specific trends in perceptions. Hence, it is not possible to draw conclusions on how in the context of policy changes perceptions might potentially shift accordingly. Future research could specifically take into account these contextual factors with

a different technical research design. In particular, to investigate impact of the two deliberative processes on the justice perceptions of climate policy would be interesting to create a more complete understanding of perceived procedural aspects.

Third, the coding and the categorization of the statements is conducted in a systematic way. Yet, weaknesses can arise from the researcher's subjectivity in this process. Meaning that e.g. a lack of rigor in categorization or misinterpretation of statements might lead to biased results and contributes to reduced validity. This potential weakness is recognized and prevented in the best way possible. To allow exhaustive and mutual exclusive coded variables and indicators, revisions are made along the coding process that increase validity following an abductive approach. Validity and reliability in the content analysis are also increased by following a systematic and transparent procedure for data processing. Furthermore, pilot testing of the sampling plan and the data collection procedure are generally helpful to eliminate inconsistencies (Wildemuth, 2016).

Fourth, one general limitation concerns the use of personal statements. The authors of the statements do not disclose individual motivations for expressing their opinions. Thus, it must be expected that authors of Facebook comments express their opinions only spontaneously and following an emotional impulse, participants of the nationwide consultations potentially act out of a need for recognition, and politicians can naturally only correctly assess the perceptions of citizens to a limited extent. What they all have in common is that participation in the communications under consideration may be done with a view to positions of power that are aspired to or to be defended. These secondary motivations of individuals could not be specifically considered and excluded, therefore data could potentially be misjudged. By collecting a significant amount of data from different data sources, this impact is reduced. Similarly, given that trolls and bots spreading disinformation and misleading content can increasingly be witnessed on Facebook, collected data might be biased in this regard (Starbird, 2019).

Fifth, another major limitation concerns the government stated data. It can be said that the statements of the nationwide consultations could be biased to some degree. These statements are obtained through a survey designed by the government. Although the survey questions cover a wide range of topics in general, the topics selected for the ecological transition are rather limited to questions of individual behavioral change. Furthermore, Dobler (2019) criticizes that the data collected at the nationwide consultations would depict "a public in sharp contrast with the Yellow Vests" (p.6). With that she explains that the socioeconomic characteristics of the contributors of the nationwide consultations varied greatly from those of

the YV. Therefore, the statements of the nationwide consultations might not be completely representative of the YV, which affects the results of this study.

Finally, by translating the statements at an early stage of the analysis, I might reduce opportunities to discover new concepts and the quality of the results (Abfalter et al., 2020). However, translating at a later stage would require greater investment in time which was not considered as option in the short overall research phase of this thesis.

CHAPTER 8. CONCLUSION

This chapter concludes by answering the research question (8.1.) and by describing future research needs (8.2.).

8.1. Content conclusion

This study sought to analyze justice perception as determinant of climate policy acceptance by studying in-depth the case of the YV movement. It was steered by the central research question: *How are justice perceptions of climate policy shaped in the case of the Yellow Vests movement?*

To answer this question, a multi-perspective approach was applied that combines the trivalent framework of EJ theory consisting of distributional, procedural and recognitional dimensions, and perceiver and situational factors applying basic justice perception theory by Hegtvedt (2006). Content analysis was used in the confrontation of the twofold analytical framework with the empirical reality, including 383 citizens' statements from public and governmental sources. Although facing strongly deviated semantics of the data sources - Facebook comments on the one hand, statements from Parliamentary debates, contributions to the nationwide consultations and the *Citizens' Convention on Climate* on the other hand, the chosen qualitative approach was able to fulfil expectations to abductively reveal previously insufficiently considered interrelationships. The analyses uncovered a variety of different perceptions and reasoning contexts in detail.

The first results consist of identified patterns to explain the significance of distributional effects, participatory and recognitional aspects within the justice perceptions of climate policy. The results indicate how justice perceptions are primarily individually shaped. Above all, the results of the identified patterns of perceived distributional, procedural and recognitional aspects suggest that, as hypothesized, justice perceptions of climate policy are heterogenous. It can be said that various issues of climate policy are connected with individual perceptions of injustice. Meaning, that generally perceptions are shaped by individual diverse perspectives that account for differentiated subjective understandings of justice, as suggested by Montada (2011) and as initially hypothesized for the present case.

Furthermore, all justice dimensions are found to be significant in the justice perceptions. In terms of frequency, distributional effects are mentioned the most, followed by participatory and recognitional aspects. Keeping in mind that the trigger of the YV protests was the planned increase of the carbon price, injustice perceptions unfold themselves primarily in the distributional effects of the instrument. Yet, the perceived injustices of climate policy are found

to sit much deeper than only being reflected in the factual discrimination of those strongest affected by the regressive incidence of the policy burden.

Especially, the findings of the patterns of distributive justice illustrate how justice perceptions are primarily shaped by great variety when it comes to the distribution of policy burdens and benefits. This heterogeneity becomes evident in the groups that are assigned burdens including firms, households, countries and sectors. What is characteristic for the perception of distributive justice is that it is associated with income. It is perceived as particularly unjust that low-income households would be very strongly affected by the carbon tax increase as well as poorest households for which an increase in the fuel price would be existentially threatening. Additionally, income dependency is linked to the issue of mobility. As especially rural households are dependent on private transportation, there is no possibility of avoiding the carbon tax. The industry is perceived to receive too few policy burdens, as reflected in the high number of perceived exemptions given to it. At the same time, it is stressed that the adaption period granted to the industry are not conceded for households.

Distributive justice perceptions are formed by the assumption that perceived excessive policy burdens can be compensated with benefits. In this regard, poorest and rural households, perceived as strongest affected by the policy burdens, could be redistributed benefits, either directly through tax rebates or indirectly through tax revenue being invested in the improvement of the public transport infrastructure. The redistribution of tax revenue is specifically demanded for sustainable uses such as environmental projects or investments in organic agriculture.

When it comes to procedural aspects, of significance is that citizens perceive themselves as underrepresented in decision-making processes, given that other actors i.e. elites and economic institutions are perceived as overrepresented. In this, elites are perceived as exclusively economically oriented groups. Next to this perceived lack in inclusiveness in decision-making processes citizens' engagement is demanded through direct democracy.

Aspects of recognitional justice are more homogenous. Justice perceptions are in fact not only coined by tax effects on the income of households but by the fact that the tax burden is becoming an existential threat for many households and thus denying a life in dignity, which is not recognized in current climate policy. Similarly, future generations and nature in its own right are particularly perceived as not being recognized.

Using the same data set perceiver and situational factors were identified and linked to specific justice perceptions in a causal approach. Nine causal perspectives were revealed that explain the influence of these factors on the justice perceptions of climate policy. These in turn were condensed into three thematic groups. This thematic grouping of individual perceptions

derived directly from the data were also interpreted in terms of collective perceptions that shape the YV's self-understanding as a group. Overall, both perceiver and situational factors in particular composition exert influence on different combinations of patterns of justice perceptions, with a specific thematic focus respectively.

The first group of causalities refers to perceptions of injustice evoked by the individual affectedness by climate policy. The findings indicate that *economic inequality* is found to have a strong influence on justice perceptions. In the viewpoint of the YV this is to be ascribed to the influence of elite structures that are emblematic of driving income distribution further apart, as they are perceived to shape climate policy outputs, specifically distributional and recognitional aspects, according to their own predominately economic interests to the detriment of especially low-income households. Next, the symbolic meaning of *agriculture* shapes justice perceptions, which results from the assignment of responsibility to farmers in their specific role in climate mitigation and adaptation. Influence is also drawn from the criticism of the inadequate transport infrastructure in rural areas and the resulting *mobility* problems. Hence, the impact of a carbon tax on citizens is exacerbated and manifests itself in distributional and procedural aspects that refer to the perceived misalignment of national climate policy to the regional context.

Together these affected groups in their extensive heterogeneity form the collective identity of the YV that perceives a common fate arising from shared struggles. YV identity thus already encompasses the notion of a much more fundamental disadvantage than that given by direct climate policy effects. YV see themselves first as a group of French citizens defined by socio-economic conditions. Accordingly, the causal perspectives explain how the identity of the YV is built on the entitlement to directly represent those affected.

A second group of causalities focuses on the (in)justice of the political system as accountable for the injustice effects of climate policy. The perceived *value orientation in climate policy* is found to determine justice perceptions. The elites entrenched in the government, are perceived to ascribe to values that both hinder a socio-ecological transition and are held to be accountable for unjust distributional and procedural effects. Justice perceptions are also shaped by general *distrust in government*. The influences leading to questioning the appropriate use of tax revenue and the transparency and accessibility of decision-making processes result from the perceived lack in reliability and integrity of the government. France's *international climate policy* leads to perceptions of distributive and procedural injustice based on economic effects considering the domestic economic situation and in terms of international competitiveness. The findings indicate that justice perceptions are coined by the differentiation to a group assigned a counter

identity that is hold accountable for producing injustices of climate policy. Particularly, political authorities entrenched by elites adopt a climate policy that is per se perceived as unjust since it is solely economically driven.

A third group is about what is perceived as just concerning citizens' responsibilities in the field of climate policy. Perceived *individual responsibility* with regard to the perceptions of a just climate policy unfolds, on the one hand, from criticism of market-based climate policy and, on the other hand, from direct responsibility of citizens. Against this background, the injustice perceptions unfold primarily in the procedural dimension with regard to citizens' engagement. Perceived *polluter responsibility* refers to the very heterogeneous perceptions of the causation of pollution that lead to a multitude of distributional injustices. This can be seen as information deficit that in turn is blamed on the political procedure. Assigning *stakeholder responsibility* shapes the justice perceptions accordingly. Starting from a position characterized by a strong socio-ecological self-perception, future generations and nature in its own right are thematized as a problem of recognition. In this context, a stronger influence of France in international climate policy is perceived as just. Justice perceptions thus are shaped by conceptions pertaining to the assignment of responsibility for climate action and policy. Affirmative of climate policy, but as antithesis to the current climate policy that sees climate change as clear-cut economic problem whatever its social costs, the YV challenge the moral question of who should hold responsibility to mitigate climate change by stressing ideas of responsible citizenship and cosmopolitanism as part of their own identity.

Concluding, it can be said that justice perceptions are shaped by the affirmation and demarcation of a *Yellow Vests* group identity, which is constructed by the question of affectedness and accountability and ultimately how responsibility is assigned for a just climate policy.

8.2. Future research

Overall, this study contributed to a clearer understanding of the YV contestation of a just climate policy. The study illustrated how the incorporation of perception into the concept of EJ proves as useful approach to apprehend how citizens make sense of justices in climate policy-making, which overall complemented the understanding of policy acceptance.

As this exploratory approach however did not allow to determine the exact relative weight of the perceptions of justice dimensions, future research might use the results as basis of a quantitative analysis on this matter. This would be necessary to evaluate in how far discovered causalities are context-specific for the French policy and overall situation of society. On a

similar note, the present model exclusively focusing on justice could be expanded by more explicitly integrating policy effectiveness to reveal the complex relations in-between. Policy will have to balance both sides to gain acceptance.

This study could also be complemented by integrating quantitative socio-demographics variables such as income, region, profession etc. to evaluate possible influences on the perceptions. This is of interest both to broaden the understanding but as well to give political action a focus in this regard. Similarly, factors like political orientation that are identified in influencing climate policy acceptance could also be explored for their effect on justice perceptions.

Furthermore, since this study exclusively focused on justice perceptions as determinant of policy acceptance, it would be interesting to assess justice perceptions of other stakeholder groups affected by the carbon tax or that partake in respective decision-making processes to draw a more complete picture.

Future research based on this study could develop tools to identify and understand perceptions of citizens as part of the political process. The established measures *Grand Débat National* and *Convention Citoyenne pour le Climat* are criticized by the YV for its deliberative shortcomings, yet it cannot be concluded that the public generally opposed them (Keller, 2019). Facebook proved as accessible and reliable tool in this regard in this study that provided crucial insights into the diverse perceptions of justice in a relatively unfiltered way. Its use for qualitative explorations of perceptions could therefore be stimulated in future research.

In the end, the role of the formation of a collective YV identity was found to be crucial in shaping justice perceptions in this analysis. Applying a social identity perspective such as the Social Identity Model of Pro-Environmental Action (SIMPEA) by Fritsche, Barth, Jugert, Masson and Reese (2018) could yield insights into how justice perceptions are formed not only primarily by the individual, but also how they merge and potentially develop into collective perceptions.

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APPENDIX A: SURVEY QUESTIONS OF NATIONWIDE CONSULTATIONS

1. What do you consider to be the most important concrete problem in the field of the environment today?
2. What do you think should be done to address this issue?
3. Would you say that your daily life is affected by climate change today?
4. If yes, how is your daily life affected by climate change?
5. Do you feel that you can make an individual contribution to protecting the environment?
6. If yes, what are you doing today to protect the environment and/or what could you do?
7. What could encourage you to change your behavior, such as better maintenance and regulation of your heating system, changing the way you drive or giving up driving for very short distances?
8. What would be the simplest and most affordable solutions for you to change your behavior?
9. Compared to your current heating method, do you think that there are more ecological alternatives?
10. If so, what should be done to convince you or help you change your heating method?
11. Do you have the possibility of using alternative mobility solutions to the private car for your daily trips, such as public transport, carpooling, car sharing, transportation on demand, cycling, etc.?
12. If yes, what should be done to convince or help you use these alternatives?
13. If not, what alternative mobility solutions would you like to be able to use?
14. And who do you think should be in charge of offering you these alternative solutions?
15. What could France do to share its environmental choices at the European and international level?
16. Are there any other points on the ecological transition on which you would like to express yourself?

APPENDIX B: NODES FOR NVIVO ANALYSIS

The nodes and sub-nodes in italics indicate those that are added during the coding process through inductive reasoning.

Dependent variable: Justice perceptions of climate policy

Dimension: Distributive justice

- Node 1. Allocation of policy burdens
- Sub-node 2. Distribution of policy burdens between firms and households
- Sub-node 3. Distribution of policy burdens between households
- Sub-node 4. Distribution of policy burdens among countries
- Sub-node 5. Distribution of policy burdens between sectors
- Sub-node 6. Distribution of policy burdens according to the pollution level*
- Node 2. Allocation of policy burdens
- Sub- node 1. Redistribution of tax revenue

Dimension: Procedural justice

- Node 3. Inclusiveness
- Sub-node 1. Inclusion of relevant stakeholders
- Sub-node 2. Representation of economic institutions*
- Sub-node 3. Representation of social groups*
- Node 4. Participation
- Sub-node 1. Access to decision-making process
- Sub-node 2. Citizens' engagement in decision-making process

Dimension: Recognition justice

- Node 5. Recognition of economic vulnerable groups
- Sub-node 1. Attention for vulnerable groups in climate policy
- Sub-node 2. Attention for future generations*
- Node 6. Recognition of nature
- Sub-node 1. Attention for nature*

Independent variable: Perceiver and situational factors

Dimension: Perceiver factors

Node 7. Individual characteristics

Sub-node 1. Trust in government

Sub-node 2. Collective Identity

Node 8. Beliefs

Sub-node 1. Belief in climate change

Sub-node 2. Belief in effectiveness of policy

Sub-node 3. Belief in effectiveness of individual behavior change

Sub-node 4. Belief in polluter-pays principle

Sub-node 5. Belief in moral responsibility

Node 9. Motivations

Sub-node 1. Material self-interest

Sub-node 2. Environmental motivation

Dimension: Situational factors

Node 10. Economic situation

Sub-node 1. Income distribution

Sub-node 2. International situation

Sub-node 3. Rural situation