

How the Experience of Public-Service Quality and Corruption Shapes Political Solidarity and Trust:

Experimental Evidence from a Novel Virtual-State Approach

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Abstract (150 words)

Using an online vignette environment within a virtual state we call Novaland, we examine how variations in public-service quality and corruption affect political solidarity. Participants make positive, negative, or negative-and-corrupt public service delivery experiences and engage in everyday activities, ensuring immersive and attentive participation. We test propositions grounded in a social contract model, showing that support for domain-specific public spending increases under poor service delivery, but support increases less when corruption is present besides poor service delivery alone. This support seems not to translate into a demand for more general welfare spending. Political trust declines over time when quality is low, especially when corruption is present. These findings underscore the importance of equitable and efficient public services in maintaining both political solidarity and trust. As public service quality declines in many European states, our study suggests that unmet public expectations risk eroding political solidarity in public domains and political trust.

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1. Introduction

Modern states provide a broad spectrum of public services, and citizens expect reliable access to impartial, high-quality services. Yet when service delivery falls short, or becomes tainted by corruption, what consequences follow for the citizens' relationships with the state? Such failures could fundamentally erode citizens' willingness to fund public services, undermine their political trust, and have crippling, long-term effects on society.

We investigate the causal link between the quality of public-service delivery, the occurrence of the option to bribe during that delivery, and individuals' willingness to support the state. Our theoretical model builds on an imagined contract that citizens perceive to have with the state. We conduct the study in a novel immersive environment – a virtual state called Novaland – where we can experimentally manipulate the political and societal context, and, most importantly, also manipulate the encounters of the participants with the state.

Our findings show that citizens adjust their political attitudes in direct response to the quality of public-service delivery. These adjustments are in terms both of their willingness to support the state financially, which we call “political solidarity”, and of their trust in the government. We find that, in the short term, people support increases in state spending when they experience poor public-service delivery. This is also true in the case of corrupt service delivery – albeit significantly attenuated. In the long

term, though, if people continue to make negative or corrupt service delivery experiences, it undermines their political trust in the system.

Understanding how public-service quality affects citizens' attitudes is not only relevant in the context of poorly performing states, but it is also relevant for states that historically have functioned well, but that are struggling to preserve this quality of output. Comparative data suggests some signs of decline in perceived government service delivery in advanced industrial democracies. For example, Germany's Government Effectiveness Score – an index capturing perceptions of public-service quality, civil service independence, and policy credibility – fell from 1.66 in 2014 to 1.19 in 2023, marking its lowest level in the past 24 years of observations (World Bank 2023). At the same time, corruption levels still remain low. According to the Global Corruption Barometer EU 2021, only 3% of public service users in Germany reported having paid a bribe in the previous 12 months (Transparency International 2021).

Trends of declining public-service quality clash with deeply held expectations about public services in current liberal democratic polities. As pressures on the state intensify, the prevalence of low performance and corruption is likely to rise. In these times, when public institutions are most prone to being dismantled or radically transformed, citizen support for the state institutions becomes especially critical. This prompts a critical examination of the relationship between state performance and citizens' relationship with the state. Researchers have started to look at the wider negative political consequences of the emerging weaknesses of public service delivery

(Nyholt 2023; Stroppe 2023; Cremaschi et al. Forthcoming). These findings prompt a critical examination of the relationship between state performance and citizens' relationship with the state.

Studying the impact of public-service quality on political attitudes poses several challenges: in well-functioning states, instances of poor or corrupt service delivery are relatively rare, making these situations unfamiliar to participants. Conventional survey studies (e.g., Armesto 2021) thus struggle to obtain sufficient information about low-prevalence experiences. And even when participants do report such experiences, their effects can, at best, be established only by identifying correlational patterns. Since the experience of poor public-service delivery correlates with other state performance indicators – such as low efficiency of tax collection – observational survey studies help little to establish the specific causal impact of poor public-service delivery on individuals. Even when researchers use vignettes that are embedded in surveys to improve causal inference, the purely hypothetical scenarios that are unfamiliar to participants lack the emotionality and realism that would capture genuine reactions to systemic failures.

The challenges of limited familiarity and difficult causal inference are overcome through an immersive setup - a fictional virtual environment that weaves vignettes into a seamless narrative (Goerres et al. 2024). This design goes beyond treating service encounters as isolated episodes. By embedding consecutive, realistic interactions, it allows us to trace how incremental (dis)satisfaction with public services shapes

attitudes toward the state. While individual scenarios can be assessed on their own, our approach also captures how ongoing underperformance gradually erodes both political solidarity and political trust. In this study, about 1,600 participants located in Germany experienced our virtual state of Novaland and were exposed to experimental treatments reflecting pre-registered hypotheses.

We contribute to the literature on citizen–state relations by integrating key concepts related to satisfaction with public services, redistributive attitudes, and political trust. We provide experimental evidence on how persistent service shortfalls can weaken trust, while in the short term, they spur increased financial support in the hope of eventual improvement. We observe that citizens behave like "loyal customers" who tolerate some underperformance by the state, while they hold on to the idea that the state can return to its former quality. However, as failures become more frequent or corruption more prevalent, citizens political trust diminishes.

2. Theoretical Framework: The Imagined Contract Model of Citizen–State Relations

We propose an Imagined Contract Model to describe citizen–state relations. Individual citizens imagine having a contractual relationship with the state based on reciprocal obligations. This model is based on two conceptual foundations: the idea of the social contract (Rothstein 2021), and the Hirschman framework of exit, voice, and

loyalty (Hirschman 1970). We link these concepts to existing literature on state performance, corruption, political and social trust.

The contract is imagined because it exists in different versions across the different minds of citizens and exceeds the legally binding obligations of both parties. As one party to the contract, citizens must comply with specific demands of the state, especially to pay taxes and to support the political system. The state, as the other party to the contract, must in turn deliver impartially accessible services of an acceptable quality (Rothstein 2021). Laws and ordinances enshrine what the state and citizens have to do, but we hold that each citizen has learned an individual version of the contract with the state.

This contract does not satisfy the criteria of a formal contract, as one of the parties – the citizen – is forced by the state to fulfil its duties, while the state does not necessarily face direct legal consequences if it violates the contract by performing poorly. Some underperformances of the state in delivering services can lead to legal actions, albeit with unclear success. Citizens believe the contract is upheld by the state when they are satisfied with the public services that the state delivers to them. If this is the case, citizens fulfil their contractual relations and comply with their obligations toward the state, especially in terms of paying taxes. This consent between citizens and the state stabilizes the political system and allows better governance (Levi 1997).

In the individual's imagination, fellow citizens are also part of the contract. They examine how other citizens behave toward the state and try to extrapolate how other

citizens live out their imagined contracts (Rothstein 2018) in line with (Bicchieri 2005) theory that social norms are conditional on expectations about what others do and approve of. Recent experimental evidence shows that shaping citizens' perceptions of prevailing norms can reduce willingness to engage in corruption (Erllich and Gans-Morse 2025). If they see that others cooperate with the state, they are more willing to do so themselves (Gächter 2006). When others do not cooperate with the state by not paying taxes and not using state services properly, citizens see this as a signal that they are less obliged to comply with the terms of their imagined contracts – a phenomenon akin to “conditional corruption” (Dong, Dulleck, and Torgler 2012). Figure 1 depicts the Imagined Contract Model between the individual citizen, the state, and other citizens.

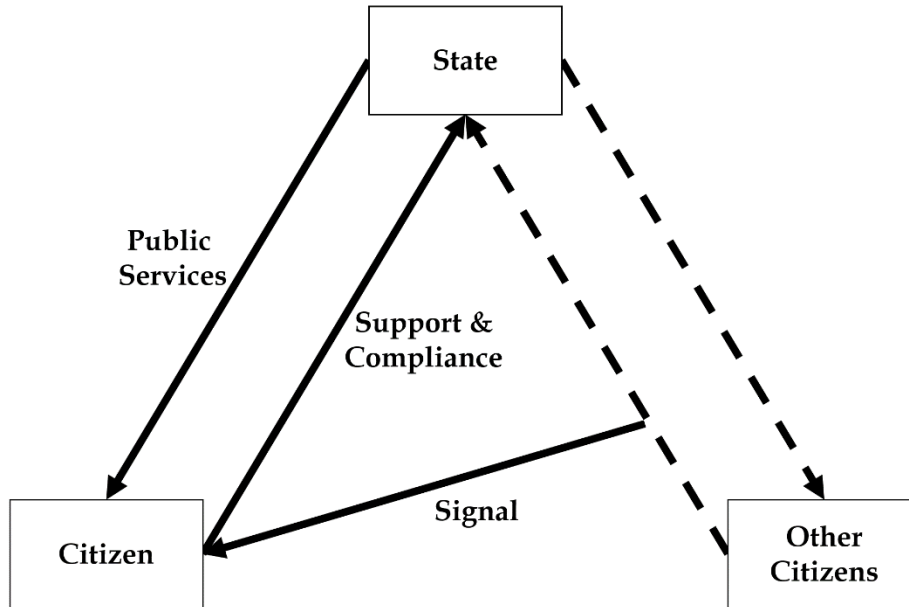


Figure 1: The Imagined Contract Model

The state can actively change its compliance with the contract, for instance, by intentionally withdrawing from delivering public services as a response to citizens not paying taxes (Besley 2020), or by withdrawing public services due to a severe economic crisis (Halikiopoulou and Vasilopoulou 2018). However, in this study, we focus on citizens’ reactions to the state’s performance as to public service delivery.

Public services differ in their level of exclusivity. They are either provided solely by the state (like issuing a passport), or they can also be bought in a market (like health services or childcare services). When there are alternatives, citizens can “exit” the contract with the state (Hirschman 1970) and seek services through a market solution.

They can also “voice” their concern through political action¹ or stay loyal by not doing or changing anything (compare Dowding and John 2008). When there are no alternatives, people can either withdraw their support for state-spending on failing services, do nothing, or they can increase their support, hoping that extra funding improves the situation.

State performance directly affects citizens’ political trust in the government. When public services meet public expectations, citizens infer that the government is both trustworthy and reliable (van de Walle and Bouckaert 2003; Kumlin 2004; Hetherington 2005; Hardin 2006; Kumlin and Haugsgjerd 2017; Armesto 2021; Zhang, Li, and Yang 2022). Experimental evidence also shows that higher institutional quality causally increases generalized trust, even in the absence of actual corruption (Martinangeli et al. 2024). This also increases individual willingness to shoulder the tax burden, which is essential for the state to function properly (Yamamura 2014).

When public-service quality worsens structurally and when therefore individual access to a formerly well-available services becomes more difficult, it opens the possibility of corruption. Corruption in the provision of public services can materialize either on a grand scale or on-the-spot. Grand corruption is found at the

¹ There are studies showing that declining public infrastructure or low-quality service provision by the state increases the vote for right-wing anti-system parties (Nyholt 2023; Stroppe 2023; Cremaschi et al. Forthcoming).

top level of the state and implicates high-level political personnel. On-the-spot corruption can materialize when street-level bureaucrats interact with citizens at the point of service delivery (Dahlström 2014; Peeters and Campos 2023).

In this study, we focus on on-the-spot corruption. Compared with grand corruption, on-the-spot corruption has a more immediate effect on the lives of ordinary citizens. It is also a more visible violation of fairness and impartiality. It undermines the principle of impartial fairness by implying that public services are not rights-based but are transactions-based (Rose-Ackerman 1999). The direct experience of corruption on the ground is also an immediate source of doubt as to whether the imagined contract between citizen and state is still valid (Levi, Sacks, and Tyler 2009). Its' effects are severe: the perception that one must bribe to secure entitlements can shatter citizens' confidence that the system is just and their willingness to support public welfare spending diminishes (Rothstein and Uslaner 2005).

The negative effect of repeated experiences of on-the-spot corruption of political trust accumulates over time. Each new bribe further entrenches the expectation of corrupt deals, thus amplifying inefficiencies and undermining policy integrity (Seligson 2002; Kaufmann, Kraay, and Mastruzzi 2009). This process is further reinforced when bureaucrats themselves are pressured or incentivized by political actors to engage in corrupt practices, as Brierley (2020) shows in the context of local government in Ghana. Over time, citizens no longer believe that they can achieve meaningful change

through legitimate institutional channels (Rothstein and Teorell 2008; Morris and Klesner 2010).

In analysing citizens' reactions to public-service delivery, we therefore differentiate between single and cumulative experiences of public-service quality. Often citizens have no alternatives to a single public service in the private market. Even if there are affordable offers by private market-providers in certain instances, the informational costs of finding these options in specific situations can be prohibitively high. If alternatives to the state's options are unattractive, citizens' willingness to support public spending may increase after single instances of poor public-service delivery. Individuals exposed to a single instance of service failure may still believe that more money can fix the problem, in the same way that loyal customers continue to trust a provider that has disappointed them once. In some cases, citizens may even recognize that political involvement in service provision – such as patronage appointments – can improve responsiveness or coordination despite the risks of corruption (Toral 2024). Different from the private market, citizens cannot exit the service consumption easily, and thus they maintain their loyalty, which also increases their support for state spending.

This form of increased support for state spending - even after personal disappointment (Stewart et al. 2025) - can be interpreted as a signal of political solidarity. It reflects citizens' willingness to uphold the shared responsibility of maintaining public services for the benefit of all, not just themselves (van Oorshot and

Arts 2005). In this sense, support for public spending is not just a reaction to individual service failure but also a reaffirmation of commitment to the broader collective good. It expresses the belief that no one should be left behind in accessing key services - a core tenet of solidarity in welfare states (Stiglitz 2018).

If state-performance shortfalls persist and are coupled with the individual experience that rules can be circumvented through bribery or personal connections, citizens' initial willingness to hope for improvement gives way to skepticism. Citizens form an aggregated view of state capacity (Christensen and Lægreid 2005) as a "running tally" of their state-service experiences, similar to the idea of a running tally in party identification (Campbell et al. 1960). As the running tally of negative experiences grows, citizens become less inclined to comply voluntarily with tax obligations. Their confidence in the principle that all citizens equally share the rights and responsibilities of the welfare state weakens. Citizens become increasingly sceptical about the contract and are thus more reluctant to contribute to the redistributive system, because they no longer feel that they need to uphold their part of the contract. In such a setting, some individuals may also shift from collective solutions (e.g., paying taxes to improve services) to private ones (e.g., paying bribes to secure better individual outcomes). Rather than demanding systemic improvement, they adapt to perceived dysfunction by opting out of the imagined contract and try to gain service access through informal means.

Whereas we can assume that all citizens develop such a running tally, we can expect the tally to have a different impact, depending on political ideology. Left-right political orientation, especially, shapes how individuals interpret and respond to these breaches of the social contract (Baron and Jost 2019; Jost 2021). Right-leaning citizens may interpret a tally of low-quality service delivery as being caused by the state's inherent structural incapacities, and thus they demand less state intervention rather than more. In contrast, left-leaning citizens may even be willing to increase their support, seeking to restore what they perceive as the state's original promise.

Based on this model of the imagined contract, we offer three propositions whose translation into falsifiable hypotheses we have pre-registered (LINK removed for anonymity):

- 1. In the short term, negative or corrupt public-service experiences increase support for more state spending in that domain.**

In the short term, citizens believe that underperformance stems from insufficient resources of the state. Also, they cannot easily exit public services because there are no easy alternatives. Consequently, individuals exposed to a negative experience increase their support for higher government spending in that domain to "fix" the system. Here, "domain" refers to the particular public-service area, for example, healthcare, education, or administrative services. However, if their negative service experience also involves corruption, citizens perceive the system as unfair. This cross-

pressure of wanting to fix the system and perceiving the system as being unfair attenuates their support for more spending.

- 2. In the long term, the cumulative experience of negative or corrupt public services triggers a decrease in overall demand for welfare spending and a decrease in trust in the government.**

Over time, accumulated disappointments across domains erode confidence in the fairness and efficacy of the state overall and reduce citizens' willingness to financially support welfare-state spending in general. Corruption experiences, especially, shake citizens' confidence that it is worthwhile to finance such a system. Likewise, citizens' trust in government is a function of their past experiences with public services. While a single negative or corrupt experience does not immediately erode trust, experiences of repeated failures and corrupt encounters drive down the overall trust in government.

- 3. The perceived social norms on bribing and political orientation shape citizens' reactions.**

We suggest two factors that influence and moderate the micro-level effects of service experiences. First, in the context of on-the-spot corruption, citizens interpret the signals from other citizens about how they would behave given the opportunity to bribe. The more citizens see signals that other citizens are willing to bribe, the less they believe in increased state spending to improve services, and the less they trust the government. Second, left-leaning individuals attribute shortfalls to inadequate

investment, and they therefore demand more state spending while right-leaning citizens interpret the same failures as structural inefficiencies in government action, and they withdraw their support for more state spending.

3. Methodological Framework

We first introduce the characteristics of our virtual-state approach in general terms. Second, we describe what the experience looked like to our participants. Third, we demonstrate how immersing participants in Novaland can maximize participant engagement and minimize demand effects. Fourth, we put forward our key dependent and independent variables. Fifth, we report our measures for ensuring high data quality.

3.1 Introducing a Novel Virtual-State Approach

We use a novel methodological approach by embedding vignettes in a virtual state called Novaland. The vignette scenarios thus become part of a fully controlled coherent experience which researchers can manipulate. Participants are instructed to act as citizens of Novaland within this virtual setting. Unlike traditional vignette methods - which often rely on single or loosely connected scenarios - our approach integrates multiple vignettes in a single narrative. Each vignette reflects a different level of service quality within one cohesive virtual-state context. It allows experiences with state performance to have both immediate and cumulative effects on citizens' attitudes, and to immerse participants in the fictional state setting. Here, we refer to

"immersion" as feeling a heightened sense of presence and engagement that makes the fictional environment feel real to participants.

To date, virtual-world studies remain relatively scarce in the social sciences despite prominent calls for their use (Bainbridge 2007). In the existing studies, experimenters place participants in an immersive environment, creating a coherent framework in which the different vignettes occur. Such virtual-world studies are also called "framed field experiments" (Innocenti 2017) because they have the advantage of testing dynamics in a world setting, albeit virtual, and of allowing the usage of experimental designs. In addition to their advantage as framed field experiments, we also see a merit in virtual-world studies as an antidote to survey fatigue and inattentiveness. Survey participants, especially in online surveys without any checks for compliance, may be low on focus, inattentive, and not cognitively present. Along a similar logic, survey methodologists try to insert engaging survey items in substantive social science studies (Bartholomäus and Gummer 2024). Arguably, by making the whole survey more like a novel virtual experience, participants will stay focused and present. Similar text-based experiences of players encountering certain situations and then reacting to them in a coherent political framework can be found in many commercial video games, for instance, "Suzerain" (Torpor Games 2020), "The Political Machine 2016" (Stardock Entertainment 2016), "Democracy 3" (Positech Games 2013) and "Roadwarden" (Moral Anxiety Studio 2022). Political scientists have employed the immersive nature of such designs to study individuals' decision-making, for example,

when they are put into a position of international policymakers (Stover 2005) or just as ordinary citizens (Shellman 2001). These designs incorporate principles of so-called “text adventures” – a book and video game genre still popular today – as well as principles from online political science experiments (Del Ponte and DeScioli 2019).

Even though the underlying principles of virtual-world studies in social science are known, there are few studies using similar designs to Novaland in political science. We have come across only two studies in which a text-based online adventure as a psychological intervention. In one study, participants took the perspective of a minority group through a role-play adventure as a member of that group (Simonovits, Kézdi, and Kardos 2018). The role-play intervention sustainably reduced prejudice toward that group. The other study by Jetten et al. (2017) introduced MTurk participants to a virtual world called Mambiza. Participants were randomly assigned to one of three income groups and to different levels of economic security. They were also given fictional money to spend in Mambiza. The researchers subsequently measured whether the participants’ economic situation and perceived insecurity affected their attitudes (Tanjitpiyanond, Jetten, and Peters 2022).

3.2 The Structure of the Participant Experience in Virtual Novaland

Let us now turn toward what Novaland specifically looks like. The Novaland experience simulates a nine-day period in the life of a citizen of Novaland (see Figure 2 for the sequence and Online Supplemental Information (SI) A2 for screenshots). Before their fictional stay begins, participants received information about Novaland’s

political system including regular elections, its economic position as an industrialized country, and some core characteristics of its welfare system. Half of the participants were randomly assigned to receive information about the social norm on bribing among other citizens in Novaland. The treatment consisted of the information that six out of ten citizens of Novaland would be willing to bribe officials to gain faster access to, or better quality of, public services. The expectation was that participants in the high-prevalence group of willingness to bribe would be less willing to support state spending afterwards. Participants answered comprehension questions, including one on the social norm on bribing, and those who gave incorrect responses were filtered out. Because our participants were recruited in Germany, a country with a well-functioning bureaucracy and relatively low levels of corruption, we assume that they enter the experiment with high baseline expectations regarding state service quality. In line with the expectation disconfirmation thesis (Oliver 1980), we expect that negative or corrupt experiences in Novaland will lead to stronger attitudinal reactions, as these experiences stand in contrast to participants' prior expectations.

The fictional stay begins on a Novaland Saturday with one of two non-political experiences designed to reduce demand effects and to increase immersion in Novaland (we will go into this in detail in Section 3.3). We call these situations "smokescreens". On Novaland Sunday, a newspaper quiz serves to reinforce information on Novaland, especially on the social norm on bribing for treated participants. On Monday, Tuesday, Thursday and Friday, participants encounter one of four vignettes which revolve around consuming certain services. On Wednesday,

we interrupted the vignette experience with another smokescreen. On the second Novaland Saturday, participants encounter a pollster asking about trust in the government and the general demand for welfare spending in Novaland, which serve as dependent variables in our analysis. Finally, participants complete a post-experimental survey outside the Novaland context, gathering data on real-life political attitudes and personal characteristics.

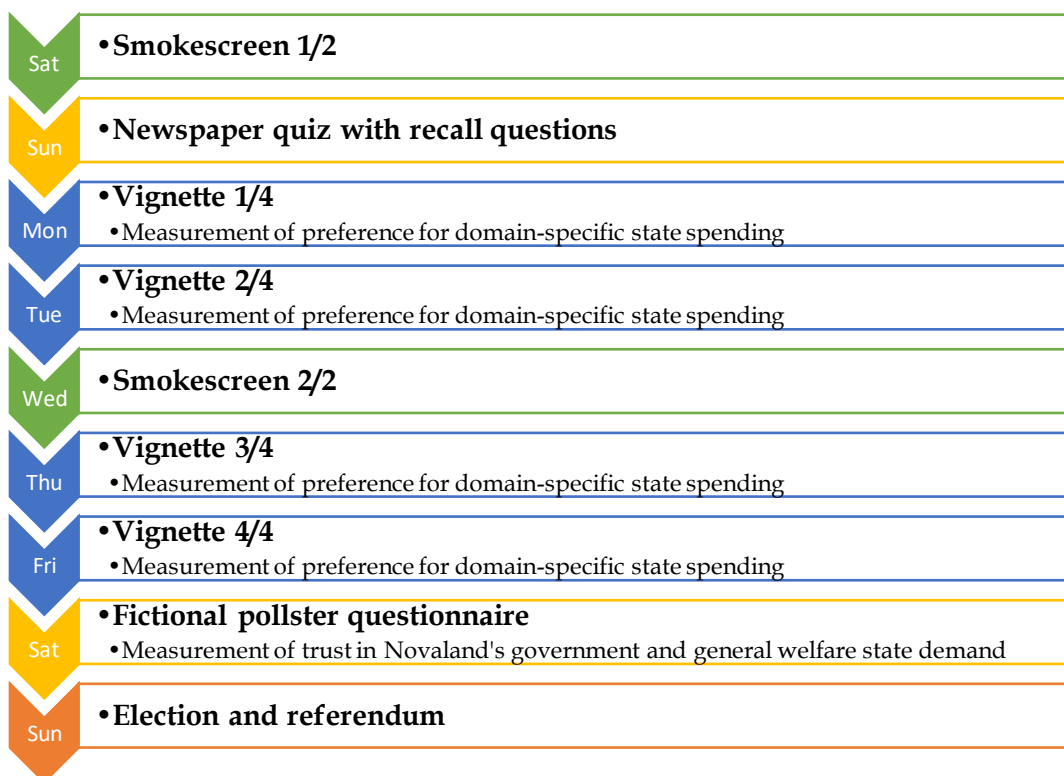


Figure 2: Structure of the experience in virtual Novaland

We created four vignettes that are theoretically relevant for answering our research question. These vignettes reflect common situations that citizens might encounter when accessing various services, and each had either a positive, negative, or corrupt quality of the service provided. In the positive experience, the service was delivered

efficiently and effectively. In the negative service-quality experience, the service was delayed, poorly managed, or entirely unavailable. The corrupt service-quality experience mirrored the negative condition, but it also included an option for participants to pay a bribe to get a quicker, more effective resolution, similar to the positive quality experience.

Figure 3 shows a screenshot of one vignette. The vignettes were mostly text-based and included a picture to increase participants' immersion in the situation described.² The text and screenshots of all vignettes can be found in their original German version in SI section A2.

²The pictures were generated using Chat GPT-4o with various prompts on September 23, 2024. Details are available in SI section A.2.

Montag. Tag 3 von 9



You are looking for a place for your 4-year-old child in a local kindergarten. In Novaland, state kindergarten places are allocated by the Family Service Agency (FSA). You fill in the forms and go to the local FSA. You wait in the queue for a while. When it is your turn, you enter the office of the FSA employee and explain your situation to her. She begins to search the database for available kindergarten places.

After a thorough search in the database, the employee informs you that there are no free places in a kindergarten near you. All the kindergartens are full and the only option is to put your child on a waiting list. She tells you that it could take a year for a place to become available.

The employee tells you that this is the only official way. However, she might be able to help you if you, if you made a payment to her under the table. In this case, your child could get a place at a kindergarten near you in a few weeks.

Figure 3: Screenshot of the kindergarten vignette with corrupt service quality translated to English (the original German version can be found in SI section A2)

Each vignette participants encountered in Novaland was chosen to resemble different issues that are salient and realistic for ordinary citizens of modern states. Each scenario included an interaction with a virtual person – all female to keep it consistent – to receive a certain service. These are the four vignettes included:

- Kindergarten placement: This vignette addresses the challenge of finding a place for a child in a public kindergarten, a critical component of many welfare states' early childhood education policy.
- Doctor's appointment: This vignette focuses on the necessity of securing a medical appointment. It was designed to simulate interactions with the healthcare system, a welfare-state domain in which state efficiency and integrity are paramount.
- Issuing a new passport: Whereas the first two vignettes revolve around welfare-state domains, this vignette revolves around being issued a passport within a tight timeframe before an upcoming international vacation. This vignette represents an interaction with public services outside the redistributive welfare state.
- Technician's service for broken washing machine: This vignette does not revolve around a state-related service. Instead, it involves an interaction with a private company, depicting the experience of trying to find a technician to fix a home appliance within a tight timeframe. Unlike the other vignettes, this vignette is not related to state functions but is included to test an alternative model – which could be termed a "general satisfaction model." This model hypothesizes that participants might attribute their overall satisfaction or dissatisfaction to the state, using it as a scapegoat, even when the state is not responsible for the service in question. We find no support for this pathway in additional models reported in SI section A3.

Each vignette participants encountered in Novaland was chosen to resemble different issues that are salient and realistic for ordinary citizens of modern states. The selection reflects variation in the degree to which services are typically provided by the state and how easily they can be substituted by private alternatives. Two vignettes – securing a doctor’s appointment and finding a kindergarten placement – represent core welfare-state services that, to some extent, can be replaced or supplemented by market-based solutions (e.g., private healthcare or self-paid childcare). The passport vignette represents a case in which the state is the sole provider, with no viable private substitute. Finally, the technician scenario depicts a fully privatized service and was included to test whether dissatisfaction with non-state services might still spill over into general dissatisfaction with the state.

Table 1 provides an overview of the four vignettes, describing the quality of the service that we varied experimentally and the three possible outcomes – positive, negative, and negative and corrupt – that participants were exposed to.

Table 1: Overview of all four vignette situations embedded in the Novaland experience

	<i>Public</i>		<i>Private</i>	
	Welfare state		Non-welfare state	
<i>Vignette scenario</i>	Kindergarten placement	Doctor’s appointment	Issuing new passport	Technician service for broken washing machine
<i>Quality of service</i>	Availability of places in local kindergartens	Availability of doctoral appointments	Processing time of passport issuing	Availability of the technician’s appointments for fixing the private

				washing machine
<i>Positive</i>	Getting a place in a local kindergarten this year	Getting a doctor's appointment within three weeks	Receiving a new passport within a few weeks, on time for an already paid international vacation	The technician repairs the washing machine within five days
<i>Negative</i>	Not getting a place in a local kindergarten and having to wait until next year	Getting a doctor's appointment after three months	Receiving a new passport after several months and thus too late to go on an already paid international vacation	The technician repairs the washing machine after several weeks
<i>Negative and corrupt</i>	Not getting a place in a local kindergarten and having to wait until next year, unless paying a bribe	Getting a doctor's appointment after three months, unless paying a bribe	Receiving a new passport after several months and thus too late to go on an already paid international vacation, unless paying a bribe	The technician repairs the washing machine after several weeks, unless paying a bribe

We use a mixed within-subject/between-subject variation. Each participant was exposed to the same four vignettes (in a random order). This way, we could estimate the intra-personal effects of the outcomes of the different vignettes. With the between-subject variation of the number of different outcomes, we can estimate the cumulative effects of the quality of the services. We randomly assigned participants to different combinations of outcomes of each quality. We call these combinations “decks”. The order of the outcomes in each participant’s deck was also randomized.

Given that each of the four vignettes could entail one of three service-quality experiences (positive, negative, or negative and corrupt), generating all combinations would have led to too few participants per combination, thus compromising the reliability of our estimates. Therefore, we limited the study to six decks to analyse the cumulative effects based on the frequency of each service quality across the participants' stay in Novaland (see Table 2). Each deck corresponds to a different level of state performance.

Table 2: Deck combinations of positive, negative and corrupt service-quality experiences

Service Quality			Description
Positive	Negative	Corrupt	
4	0	0	A fully efficient state where all vignettes contain positive service-quality experiences.
3	1	0	Primarily positive experiences, with a single negative service-quality experience.
3	0	1	Predominantly positive experiences, with one vignette resulting in a corrupt service-quality experience.
2	1	1	A mix of mostly positive experiences with a single negative and a single corrupt service-quality experience.
1	3	0	A deck dominated by negative experiences, with only one positive service-quality experience.
1	0	3	A deck dominated by corrupt experiences, with only one positive service-quality experience.

In summary, we applied three steps of randomization for each participant: First, we randomly assigned each participant to a deck that defined the number of outcomes of

each type. Second, we randomly distributed this set of outcomes among the four vignettes. Third, we randomized the order of the vignettes. We can thus rule out possible order effects.

3.3 Minimizing Demand Effects and Maximizing Participant Engagement Through Immersion in a Virtual State

Collecting data on political preferences potentially generates demand effects. Participants might adjust their behaviour according to their perception of the experimenters' expectations, although these effects are relatively small in survey experiments (de Quidt, Haushofer, and Roth 2018; Mummolo and Peterson 2019). To counter possible demand effects, we used "smokescreen situations": ordinary, life-like, non-state-related situations that citizens might encounter in their everyday lives. The smokescreen situations, therefore, play a critical role in reinforcing the immersive nature of the experiment. They enable participants to perceive Novaland as a real place with a complex and varied social fabric, rather than just a series of disconnected, hypothetical vignettes. In one of the two smokescreen situations, participants choose whether to adopt an animal from a shelter. In the second, they choose in which restaurant to have dinner with their friends (see screenshot in Figure 4 and SI section A2).

Saturday. Day 1 of 9

Today you want to spend some time with some friends and enjoy a delicious dinner. As usual, your friends' suggestions go in different directions. Your city offers plenty of options, but to satisfy everyone's tastes and food preferences, there are three restaurants on the shortlist.

Your friends ask you which restaurant you would prefer to visit:

A barbecue restaurant that offers many hearty dishes in a rustic ambience.

A sushi restaurant with a modern, minimalistic interior.

A restaurant with Italian food and a large outdoor area.

Weiter

Figure 4: Screenshot of the restaurant smokescreen translated to English (the original German version can be found in SI section A2)

Another concern may be that the immersion created by the experience could alienate participants from their real-world identity, because they may decide to embody someone completely different in the virtual experience. This being said, during the pilot stage, post-survey qualitative interviews showed that participants consistently tried to be themselves in the experience. In the main study, we also found clear correlations between real-life political ideology and in-experience behaviour, such as left-leaning participants being more supportive of increasing state spending in

Novaland. This indicates that Novaland does not lend itself much to playing an alter ego.

One might also expect participants not to behave sincerely, because what they do in Novaland has no real-life consequences. In general, we believe that this danger is lower in an immersive virtual-world environment than in a traditional online survey in which participants answer a battery of questions. We can demonstrate that participants report high levels of engagement after the Novaland experience as measured with answers about the survey experience and with answers to open questions. About 36% of participants chose to receive a personalized certificate of Novaland citizenship, even though they knew this was fully optional and would take several seconds to generate. This behavioural measure of immersion aligns with survey responses about participants' experience: on a seven-point scale, 72% of participants rated the experience in the two highest interest categories.

Although the design included many measures to increase participants' immersion, no deception was used. Participants were asked to behave as themselves in the setting of the fictional country. They received full information before they could voluntarily live through the experience and were told that they could leave the experience at any time. We also debriefed the participants by clearly stating that their stay in the fictional country was over and that the country does not exist in the real world. We received ethical clearance from the Ethics Review Board of the authors' university before collecting the data.

3.4 Description of Dependent and Independent Variables

We distinguish between the attitudes participants have towards public spending in specific domains after each vignette and their attitudes based on their cumulative experiences across all vignettes regarding the political system in general. Within each vignette, our main dependent variable was participant support for domain-specific state-spending. Regarding the political system in general, we measured individual's general demand for welfare-spending and political trust after they had experienced all four vignettes.

Domain-specific state-spending was measured directly after participants were exposed to a vignette: *'Please indicate whether the state should spend more or less money in this domain. The state should spend... (Bear in mind that higher expenditure can also require higher taxes)'*. The value ranged from -0.5 (*'Spend a lot less'*) to +0.5 (*'Spend a lot more.'*). We did not include this question in the vignette with the technician, because it does not contain any interaction with the state.

Additional variables were measured to account for order effects and the effects of previous experiences made in Novaland. First, we considered the position of the vignette within the deck. Positions ranged from 1 (first vignette on Novaland Monday) to 4 (last vignette on Novaland Friday). Second, we factored in how often participants had experienced services of each quality before the current vignette. Each service quality could have occurred between 0 and 3 times before a given vignette.

Both dependent variables for the analysis of cumulative effects were measured after participants had experienced all four vignettes. General demand for welfare spending was measured on an 11-point scale with the question: *'If the Novaland state had to choose between two alternatives, what should it choose?'* This variable was rescaled to range from -0.5 to +0.5. -0.5 indicates participants' preference for lowering taxes and reducing social benefits, and +0.5 indicates a preference for raising taxes and increasing social benefits. Trust in government was measured on an 11-point scale with the question: *'On a scale of 0 to 10, how much do you personally trust the government of Novaland?'*, rescaled to range from 0 to 1 (0 = *'Don't trust at all'*, 1 = *'Complete trust.'*).

We also included a binary variable on whether participants had received information of the social norm on bribing in Novaland at the beginning of their fictional stay. Another binary variable captures whether participants had previously had experiences with on-the-spot corruption in real-life. Control variables included participants' age, gender, education, employment, income, and real-life political orientation on the left-right scale (recoded as three categories: "Left" [1-4], "Middle" [5-7, reference category], "Right" [8-11]).

3.5 Checking Overall Data Quality

Before we conducted the large online data collection, we pre-tested the Novaland experience using in-depth qualitative interviews with participants in an on-campus pilot data collection. In the interviews, 28 participants were questioned about their

experiences and choices. We used the results from these interviews to adjust the experience to match our research goals to the participants' perceptions.

For the main online data collection, we recruited participants via CloudResearch's Prime Panels (Chandler et al. 2019). Via this platform, we recruited micro-workers who were based in Germany and who spoke German. Before participants could enter the survey website, they were first directed to CloudResearch's *Sentry* application for quality checks, for instance, bot detection, language skills, and attentiveness checks. Only users who passed this check were allowed to enter the survey. We additionally screened out participants who did not pass the comprehension checks embedded at the beginning of our own questionnaire. Overall, 1,630 participants completed the study between 3 and 10 October 2024. See SI section A1 for the distribution of all measured socio-demographic characteristics. The study was implemented using oTree (Chen, Schonger, and Wickens 2016) – a Python-based application for online experiments – hosted on the server platform Heroku.

Participants who failed to answer the simple comprehension questions in our questionnaire were immediately removed from the study. A total of 4,147 participants passed the *Sentry* checks and began participation, of which 2,517 did not complete the study. Within the group of non-completers, 87% (N = 2,187) were removed due to failing our comprehension check, while the remaining 13% (N = 330) dropped out at later stages of the study. Prior to the comprehension check, participants provided

basic demographic information (age, gender, and years of education), allowing us to compare the demographic profiles of completers and non-completers.

The analysis of the participants' socio-demographic characteristics (SI Table 3) reveals that those who completed the study were, on average, substantially older than the non-completers by about nine years (mean age: 41 years for completers vs. 32 years for non-completers, $p < 0.001$) and had slightly more years of education than non-completers (mean of 13.5 years for completers vs. 12.3 years for non-completers, $p < 0.001$).

Gender was balanced, with approximately 50% between male and female across those participants who completed the study, mirroring the pattern of inflow into the study.

4. Empirical Results

4.1 Evaluating Proposition 1: Do Negative or Corrupt Experiences Increase Support for More State Spending in that Domain?

We made the proposition that individuals are willing to financially support more domain-specific state spending if they experience a negative instead of a positive service quality in the respective domain. We expected the spending preference to rise less between corrupt and positive experiences. We measured participants' support for increasing or decreasing domain-specific state spending in response to the service quality of each vignette, with high values indicating a preference for higher spending.

Figure 5 shows the estimated effects of negative and corrupt service quality on support for domain-specific state spending compared to positive service quality as the reference category. The models are specified as random-intercept OLS models with standard errors clustered at the participant level. In all models, we control for age, gender, income, education, employment status, and political left-right orientation. The full regression results can be found in Model 1 in SI Table 5.

Participants support significantly more state spending after they had experienced services of a negative or corrupt quality compared to the baseline (positive quality). The second part of our proposition is also supported: Participants who experienced negative service quality supported significantly more state spending compared to those who experienced corrupt services. Both effects are substantial, with participants who experienced negative service quality increasing their support for domain-specific state spending by 16 percentage points of the scale range. For corrupt service quality, the effect is about 11 percentage points. These treatment effects are substantially larger than the largest significant effects of our control variables. The effects remain robust in several alternative model specifications (see SI Table 5).

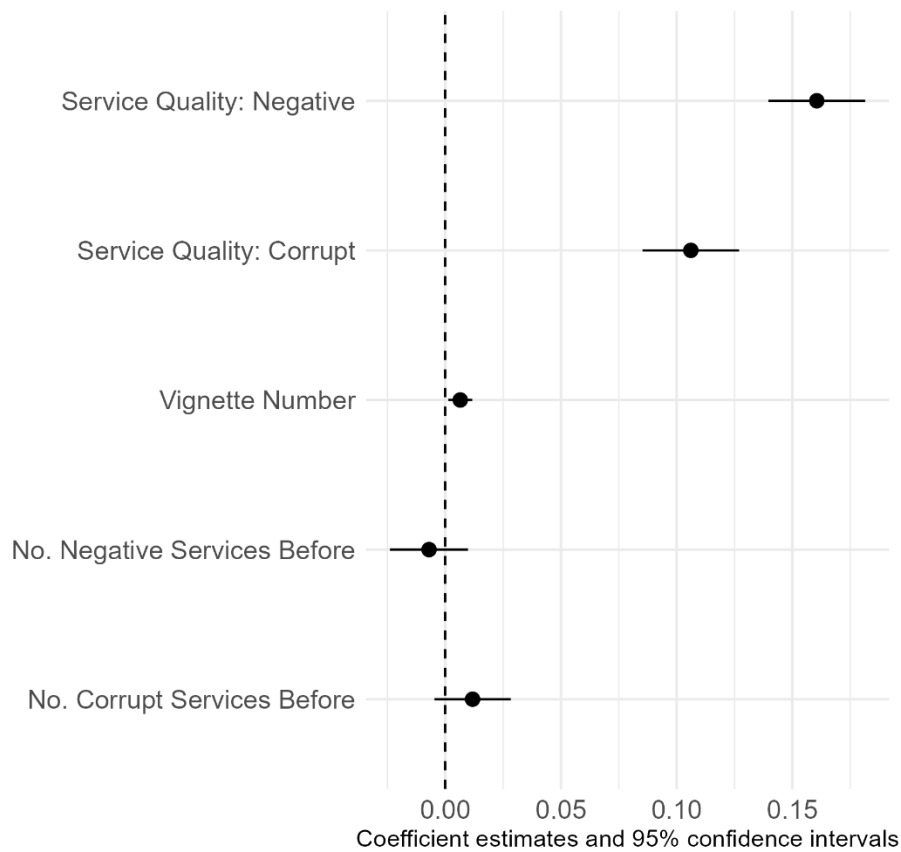


Figure 5: Effects of service quality and vignette position on support for domain-specific state spending

Note: In the respective models of this plot, we controlled for the following variables: age, gender, income, education, employment status, and political left-right orientation. The underlying model can be found in SI Table 5, Domain-Specific State Spending Model 1.

We find null effects for the number of negative and corrupt service-quality experiences made before the current vignette. This suggests participants evaluated the service quality and their support for state spending in isolation from previous vignettes. However, participants are predicted to support state spending by about 2

percentage points more in the last vignette compared to the first vignette. This may indicate that, with longer immersion, participants increasingly cared about the state of Novaland.

In a robustness check, we found that real-life experience with corruption moderates the effect of service quality on support for domain-specific state spending (see Table 3). Real-life experience was defined as having paid additional money or favours to obtain something outside official rules, faster, or in better quality. The effects of service quality are significantly smaller, by about one third, for those who had had real-life experiences with corruption compared to those who did not. This may be due to participants with real-life corruption experience being more familiar with negative and corrupt public-service quality, and therefore less affected by the treatments, in line with the expectation disconfirmation thesis (Oliver 1980).

Table 3: Effects of real-life corruption experience on support for domain-specific state spending, including interactions

	Domain- Specific State Spending Model 1	Domain- Specific State Spending Model 2	Domain- Specific State Spending Model 3
Service Quality: Negative	0.161*** (0.011)	0.161*** (0.011)	0.175*** (0.012)
Service Quality: Corrupt	0.106*** (0.011)	0.106*** (0.011)	0.123*** (0.012)
		-0.003	0.022+

Real-life corruption experience		(0.009)	(0.012)
Service Quality: Corrupt x Real-life corruption experience			-0.052** (0.017)
Service Quality: Negative x Real-life corruption experience			-0.048** (0.018)
<hr/>			
Num. Obs.	3939	3939	3939
R-squared	0.116	0.116	0.119
Socio-demographic Controls	YES	YES	YES
P-value of LR-test with Domain-Specific State Spending Model 1		0.32	
P-value of LR-test with Domain-Specific State Spending Model 2			0.00031

Note: Results from Random Intercept Models showing estimates and standard errors in parentheses. +p<0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; See SI Table 5 for the full regression results.

4.2 Evaluating Proposition 2: Does Public-Service Quality have Cumulative Effects on Demand for General Welfare Spending and Political Trust?

We now examine the cumulative effects of service quality on demand for general welfare spending and political trust. We estimated our models using OLS, heteroskedasticity-consistent (HC2) standard errors, and included the same control variables as in the models above. The estimates shown below are produced by separate models, each containing the count of either the positive, negative, or corrupt service-quality experiences as the main independent variable, as including all three in one model would introduce perfect collinearity (see Models 1 to 3 in SI Tables 6 and 7).

Against our expectations, we find positive but statistically non-significant effects of the number of negative or corrupt service-quality experiences on demand for general welfare spending (see Figure 6). In contrast, the number of positive experiences shows a significant negative effect on welfare-spending demand. This indicates that repeated positive interactions with the state accumulate to make participants less inclined to support welfare spending, possibly reflecting a belief that current services are sufficient. The effects are much smaller than the immediate effects of service quality on support for domain-specific state spending: The general welfare-spending demand of participants who had four positive service-quality experiences was on average four percentage points lower than the demand of those with only one positive experience.

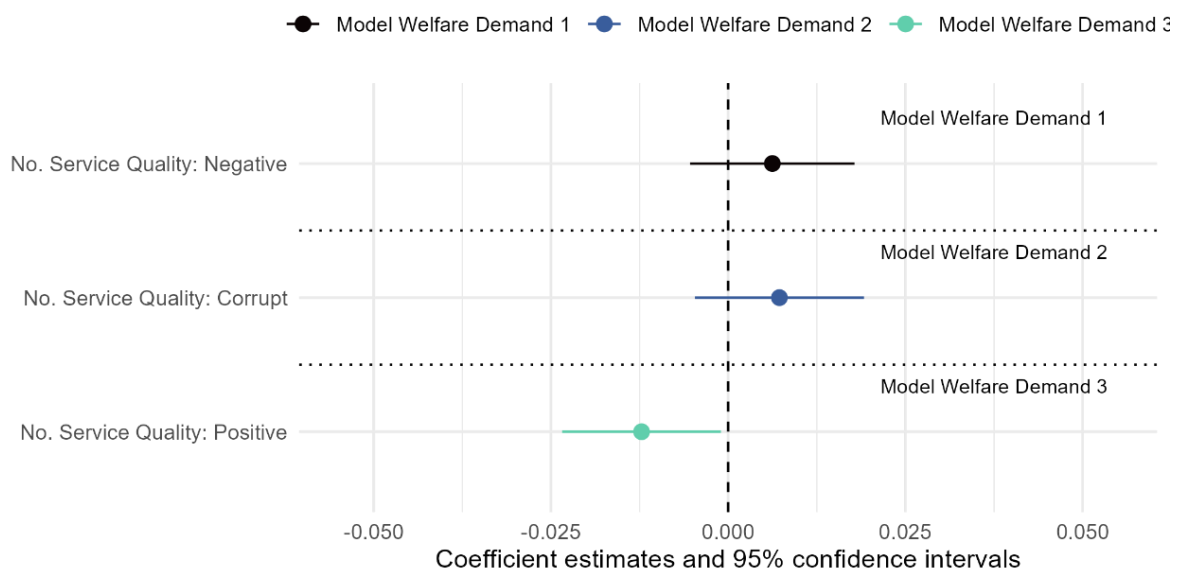


Figure 6: Effect of the number of service-quality experiences on general welfare demand

Note: In the respective models of this plot, we controlled for the following variables: age, gender, income, education, employment status, and political left-right

orientation. The respective models can be found in SI Table 6, Welfare Demand Models 1 to 3.

We also expected that repeated experiences of negative or corrupt public service delivery would erode political trust. Figure 7 shows a small but significant negative effect of the number of negative service-quality experiences on political trust. A higher number of corrupt experiences decreases trust more substantially: Compared to participants who experienced no corruption, those who had three corruption experiences showed about 10 percentage points lower political trust. In contrast, more positive experiences increased trust. Participants who experienced positive service quality in all vignettes showed about 12 percentage points more political trust than those with only one positive experience. These findings show that participants are more sensitive to corrupt interactions than to negative service quality alone, underscoring the detrimental impact of on-the-spot corruption on political trust.

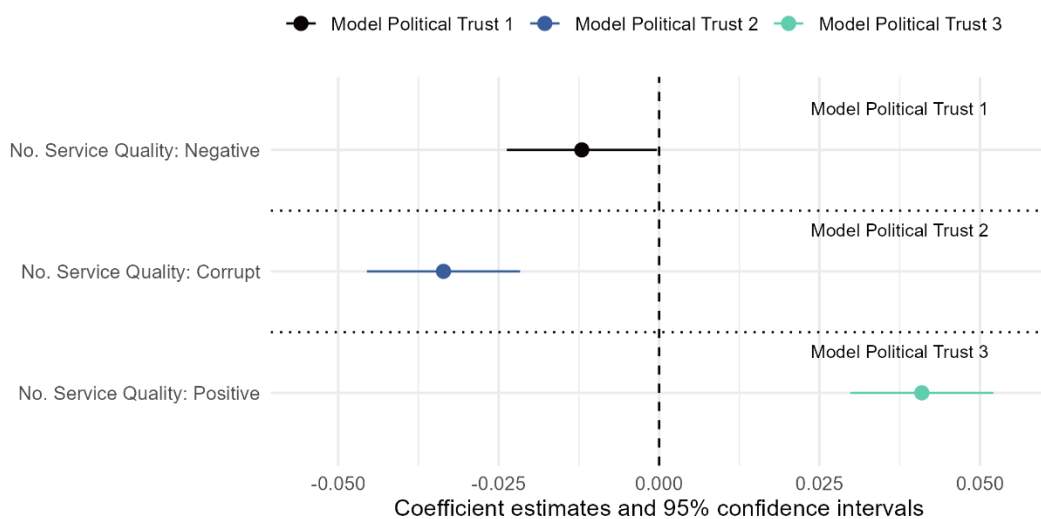


Figure 7: Effect of number of service-quality experiences on political trust

Note: In the respective models of this plot, we controlled for the following variables: age, gender, income, education, employment status, and political left-right orientation. The respective models can be found in SI Table 7, Political Trust Models 1 to 3.

4.3 Evaluating Proposition 3: Do Social Norms on Bribing and Political Orientation Shape Reactions to Public-Service Quality?

With our third proposition, we expected social norms on bribing and participants' political orientation to affect how participants respond to negative or corrupt public-service experiences. We first investigate the effects of the social norm on bribing treatment on participants' reactions to public-service quality. Remember that treated participants received the information that a majority of fellow citizens in Novaland thought it acceptable to bribe in order to get better access to public services.

We find that neither the social norm treatment itself nor its interaction with the service-quality treatments show significant effects on support for domain-specific state spending. Likelihood-ratio tests indicate no improved model fit with the inclusion of these effects in the models ($p=0.27/p=0.54$, see SI Table 10).

Similarly, we see an overall null effect of the social norm treatment on political trust and the demand for general welfare spending, as well as no significant interactions with the service-quality treatment conditions. Likelihood-ratio tests reveal no

significant improvement of the model fit when including the direct or interaction effect of the social norm treatment (all p-values > 0.5, see SI Table 11).

We now turn to left-right political orientation as a potential moderator of the effects of service-quality experiences on our dependent variables. On support for domain-specific state spending, we find a small direct effect of political orientation, but no interaction effects with the service-quality treatments. Again, a Likelihood-ratio test shows that including an interaction between political orientation and service quality does not improve model fit ($p=0.79$, see SI Table 12).

Political orientation shows no significant interaction with service quality either on the demand for general welfare spending or on political trust. For both dependent variables, including the interaction terms does not statistically improve the model fit (both p-values >0.2, see SI Table 13).

The results for Proposition 3 indicate that the effects of service quality on both general welfare-spending demand and on political trust are robust to the social norm on bribing treatment and to the participants' political orientation. This suggests that participants form their political attitudes in Novaland primarily in response to the situations they experience in the fictional country rather uniformly, and are not affected in their reaction by their expectations of other citizens' behaviour. People on the political left are also more likely to support the welfare state in Novaland, although the left-right orientation does not moderate the experimental effects.

5. Conclusions

We examine how people's experiences with poor or corrupt public services affect their political solidarity and political trust using a novel "virtual state" approach. Through the lens of an Imagined Contract Model of reciprocal obligations between the state and its citizens, we show how corruption undermines affects individual support for public spending and political trust. Our results have important implications for policymakers and researchers in many industrialized welfare states.

Participants increased their willingness to financially support public spending in a specific domain if confronted with poor service delivery in that domain. This support was likely motivated by the expectation that the state would redeem its obligations toward its citizens by improving the quality of the services provided in that domain. This mirrors the Hirschmanian logic of loyalty (Hirschman 1970): without widely available alternatives to public services on the private market, citizens signal their ongoing support for public institutions by demanding corrective action. Part of this continued support may also reflect a more general form of consumer loyalty, similar to how customers stay loyal to a brand because of their personal risk aversion and trust in the brand (Matzler, Grabner-Kräuter, and Bidmon 2008).

However, when services are not just of low quality but are also connected to on-the-spot corruption, this willingness to support public spending diminishes severely. Corruption, as a visible violation of the state's duty to provide equitable services, undermines the basis of reciprocity between citizens and the state. If citizens perceive

public goods as contingent on bribes, rather than as a universal right, their support diminishes, because they perceive that the state is no longer fulfilling its part of the contract, and their own feeling of obligation therefore declines. Although, this domain-specific effect does not translate into an overall demand for more public welfare spending, indicating that participants are primarily driven by issue-specific motivations in the context of poorly delivered public services.

Simultaneously, experiences of on-the-spot corruption lower citizens' political trust, as they no longer perceive the state as a capable provider of decent services. If citizens repeatedly experience on-the-spot corruption in public institutions, they perceive the state less as an egalitarian service provider and more as a marketplace. This aligns with the "running tally" hypothesis (Christensen and Lægreid 2005), in which repeated corruption signals systemic failure, leading citizens to cognitively "quiet quitting" the contract by mentally and financially disentangling from the state.

The experimental approach developed in this study offers a novel pathway for isolating the effects of state-citizen interactions on individual political attitudes. Our immersive virtual-state framework demonstrates its potential as a methodological tool for data collection in political science research. By embedding multiple vignettes with citizen-state interactions in a coherent narrative of a fictional country, this approach allows researchers to study institutional dynamics that are difficult to manipulate ethically or practically in real-world settings. The virtual-state framework provides a controlled environment that approximates real-world decision-making

contexts while retaining experimental rigor. It does so by creating a mental distance between the vignettes about state–citizen interactions – which participants experience in the fictional state – and their attitudes toward real-world governance, thus strongly isolating experimental treatment effects.

While the virtual-state approach offers methodological advantages, several limitations merit consideration. First, the simplified setting of a fictional country detracts from the complex cultural and relational dimensions of real-world citizen-state interactions; for instance, norms about state authority or inter-personal interactions between citizens and low-level bureaucrats, elements that are difficult to simulate in a standardized virtual environment. Second, although our study captures short-term cumulative reactions to varying levels of service quality, it does not account for the long-term effects of such dynamics within a specific political context. Moreover, participants encounter a government that is already in place, without having had the opportunity to hold it accountable through an electoral process. This lack of initial accountability might limit the generalizability of our findings to contexts where citizens can directly sanction underperforming governments through democratic means.

Third, the framework also simplifies citizens' behaviour. In the real world, citizens who face persistently poor or even corrupt public services might take collective action or seek informal networks to circumvent the state. These strategies are not yet modelled in Novaland. Future research could extend this work by allowing

participants more dynamic response options, such as allowing them to petition for institutional reforms or to choose to consume services provided on the private market instead. Finally, because participants in Novaland face no real-world consequences for their spending preferences or trust decisions, they may overstate their willingness to financially support public spending. The absence of significant effects for the social bribing norm treatment may reflect the subtlety of the manipulation, which might not have been strong enough to shift participants' perceptions of what others typically do.

In addition, the tendency to respond to service deterioration with calls for more government spending is likely shaped by participants' context: coming from a country with low corruption and a well-functioning welfare state, they may assume that the state is capable of meaningful reform. This limits the generalizability of our findings to contexts where trust in state capacity is lower. However, as the virtual-state setting is highly modifiable, many of the current limitations can be addressed by adapting it for future research.

This study offers clear guidance for policymakers, particularly in the realm of the welfare state. It shows that governments can expect decent support from citizens for improving the quality of public services in low-performing domains, even if such policies are linked to an increased tax burden. Governments can also expect citizens to trust them more if they improve public services. While our findings suggest that citizens favour additional spending in specific underperforming domains, they do not necessarily favour an increase in overall public spending. Therefore, policymakers

should focus efforts on enhancing the service quality in domains where severe deficiencies are evident. Conversely, if issues such as widely prevalent corruption, bureaucratic inefficiency, or failures to deliver basic services persist, they may erode trust and increase citizens' frustration.

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Supplemental Information (SI) to

The Causal Effects of Poor and Corrupt Welfare State Service Delivery on Political Solidarity and Political Trust: Experimental Evidence from a Novel Virtual-State Approach

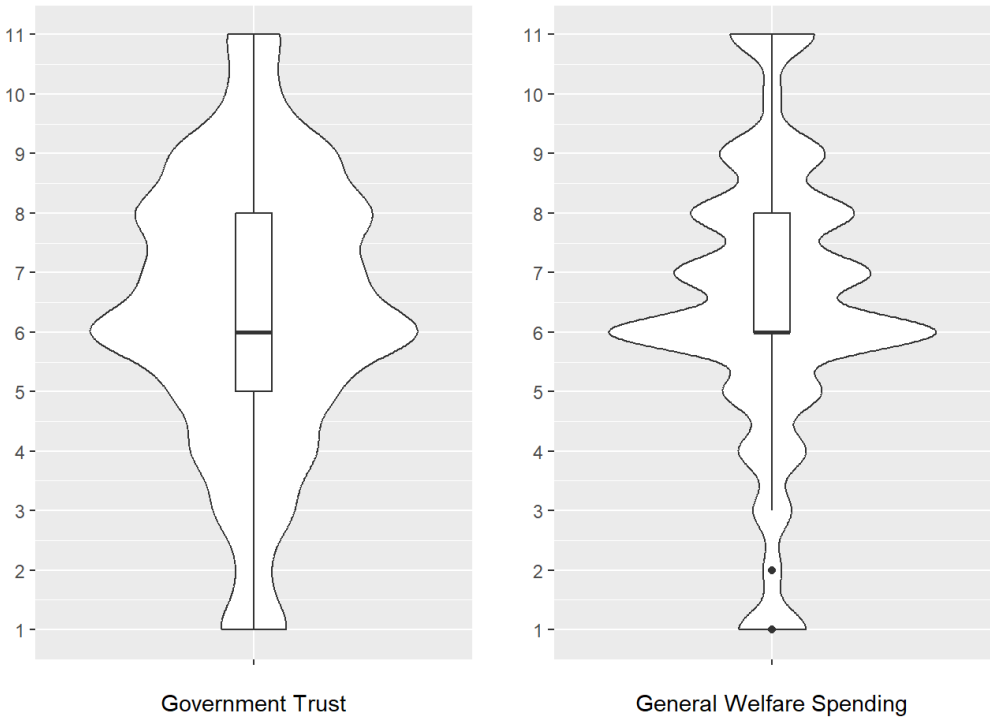
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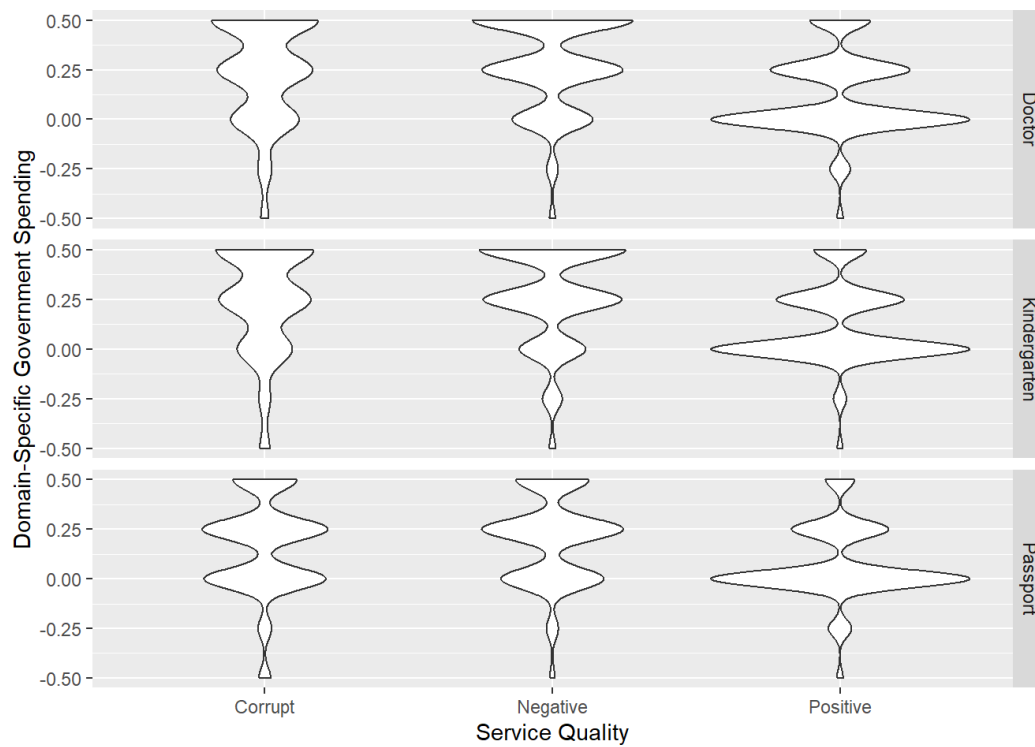
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A1 Descriptive Statistics

SI Figure 1 shows the distribution of the dependent variables trust in government and general welfare support. SI Figure 2 shows the distribution of the dependent variable domain-specific government spending support by vignette and service quality experiences.



SI Figure 1: Distribution of the dependent variables trust in government and general welfare support



SI Figure 2: Distribution of domain-specific government spending support by vignette and service quality experiences.

The following tables report descriptive sample statistics. Table A1 shows descriptive statistics at the level of respondents. Table A2 reports descriptive statistics at the level of vignettes.

SI Table 1: Descriptive Statistics at the level of respondents.

	Overall (N=1630)
Birthyear	
Mean (SD)	1980 (19.1)
Median [Min, Max]	1990 [1930, 2006]
Gender of respondent	
[1] Male	808 (49.6%)
[2] Female	817 (50.1%)
[3] Miscellaneous	5 (0.3%)
Employment Status	
[1] Full-time employed (35 or more hours per week)	704 (43.2%)
[2] Part-time (up to 34 hours per week)	225 (13.8%)

	Overall (N=1630)
[3] Unemployed and looking for work	61 (3.7%)
[4] Self-employed	64 (3.9%)
[5] In training or studying	214 (13.1%)
[6] pensioner or pensioner	286 (17.5%)
[7] Housewife or Househusband	24 (1.5%)
[8] Currently unable to work	36 (2.2%)
[9] Other	16 (1.0%)
Highest Educational Level	
[1] Still a student	57 (3.5%)
[2] Without elementary/secondary school leaving certificate	14 (0.9%)
[3] Voluntary/secondary school certificate, 8th or 9th grade, Polytechnic High School (POS) leaving after the 8th grade	161 (9.9%)
[4] Real school diploma, 10th grade diploma, diploma from the Polytechnic High School (POS) of the GDR	562 (34.5%)
[5] Fachuniversity entrance qualification (12th grade)	294 (18.0%)
[6] The general or subject-specific university entrance qualification (12th or 13th grade, extended secondary school (EOS), also EOS with apprenticeship)	542 (33.3%)
Personal Income	
Under 1000 euros	198 (12.1%)
1000 to less than 1500 euros	263 (16.1%)
1500 to less than 2000 euros	241 (14.8%)
2000 to less than 2500 euros	273 (16.7%)
2500 to less than 3000 euros	199 (12.2%)
3000 to under 4000 euros	213 (13.1%)
4000 euros or more	148 (9.1%)
Missing	95 (5.8%)
Left-Right Ideology	
Left	470 (28.8%)
Middle	964 (59.1%)
Right	196 (12.0%)
Treatment Status Social Norm on Bribing	
Untreated	858 (52.6%)
Treated	772 (47.4%)
Trust in Government	
Mean (SD)	6.35 (2.33)
Median [Min, Max]	6.00 [1.00, 11.0]
General Welfare Support	
Mean (SD)	6.48 (2.36)
Median [Min, Max]	6.00 [1.00, 11.0]
Number of Positive Service Experiences	
1	459 (28.2%)
2	457 (28.0%)
3	477 (29.3%)

	Overall (N=1630)
4	237 (14.5%)
Number of Negative Service Experiences	
0	700 (42.9%)
1	690 (42.3%)
3	240 (14.7%)
Number of Corrupt Service Experiences	
0	710 (43.6%)
1	701 (43.0%)
3	219 (13.4%)

SI Table 2: Descriptive Statistics at the level of vignettes

	Vignette				Overall (N=6520)
	Doctor (N=1630)	Handyman (N=1630)	Kindergarten (N=1630)	Passport (N=1630)	
Domain-specific government spending					
Mean (SD)	0.176 (0.231)	NA (NA)	0.173 (0.230)	0.117 (0.211)	0.155 (0.226)
Median [Min, Max]	0.250 [-0.500, 0.500]	NA [NA, NA]	0.250 [-0.500, 0.500]	0 [-0.500, 0.500]	0.250 [-0.500, 0.500]
Missing	0 (0%)	1630 (100%)	0 (0%)	0 (0%)	1630 (25.0%)
Service Quality					
Corrupt	337 (20.7%)	349 (21.4%)	324 (19.9%)	348 (21.3%)	1358 (20.8%)
Negative	351 (21.5%)	359 (22.0%)	362 (22.2%)	338 (20.7%)	1410 (21.6%)
Positive	942 (57.8%)	922 (56.6%)	944 (57.9%)	944 (57.9%)	3752 (57.5%)
Novaland Day					
Monday	425 (26.1%)	411 (25.2%)	406 (24.9%)	388 (23.8%)	1630 (25.0%)
Tuesday	407 (25.0%)	394 (24.2%)	407 (25.0%)	422 (25.9%)	1630 (25.0%)
Thursday	417 (25.6%)	379 (23.3%)	423 (26.0%)	411 (25.2%)	1630 (25.0%)
Friday	381 (23.4%)	446 (27.4%)	394 (24.2%)	409 (25.1%)	1630 (25.0%)

SI Table 3: Socio-demographic characteristics of survey participants based on completion status

Comparison of participant characteristics based on completion status							
	All participants N = 4,147		Did not complete N = 2,517		Did complete N = 1,630		p-value (Wilcoxon rank sum test; Pearson's Chi-squared test)
Age (years)	Mean: 36	SD: 18	Mean: 33	SD: 16	Mean: 41	SD: 19	<0.001
Education (years)	Mean: 12.8	SD: 5.0	Mean: 12.4	SD: 5.9	Mean: 13.5	SD: 3.0	<0.001
Gender							<0.001
Man	1,777		969		808		
Woman	2,342		1,525		817		
Other	28		23		5		

A2 Screenshots

The screenshots below serve to give an impression of what the Novaland experience looked like to participants.

<h3>Willkommen in Novaland</h3> <p>In dieser Studie sind Sie eine Bürgerin oder ein Bürger in einem Staat namens Novaland.</p> <p>Novaland hat einen hohen Wohlstand und einen hohen technologischen Entwicklungsstand. Es gibt freie, demokratische Wahlen. Die Bürgerinnen und Bürger von Novaland wählen alle 5 Jahre das Parlament. Das Parlament bestimmt anschließend den Chef oder die Chefin der Regierung mit Mehrheitsbeschluss.</p> <p>Die nächste Parlamentswahl findet in ein paar Tagen statt. Als Bürgerin oder Bürger von Novaland sind auch Sie zur Wahl aufgerufen.</p> <p>Weiter</p>							
<h3>Willkommen in Novaland 2</h3> <p>In Novaland bezahlt man mit Novas. 1 Nova ist ungefähr so viel wert wie 1 Euro.</p> <p>Ihr monatliches Einkommen in Novaland beträgt brutto, also vor Abzug von Steuern und Abgaben, 3000 Novas. Hiervon zahlen Sie monatlich etwa 900 Novas an Steuern und Abgaben. Im Durchschnitt verdient eine Bürgerin oder ein Bürger im Monat etwa genauso viel wie Sie, also etwa 3000 Novas brutto.</p> <p>Weiter</p>							
<h3>Willkommen in Novaland 3</h3> <p>Novaland hat ein breit ausgebautes Sozialsystem mit einem umfangreichen sozialen Versorgungs- und Fürsorgesystem. Der Großteil der staatlichen Ausgaben wird verwendet, um den Menschen in Novaland</p> <ul style="list-style-type: none">• das Existenzminimum zu garantieren,• eine Versorgung im Falle von Arbeitslosigkeit oder Krankheit zu gewährleisten,• Zugang zu einer funktionierenden Infrastruktur mit Straßen, öffentlichem Personennahverkehr und Bankensystem zu ermöglichen,• die gleichen Bildungschancen zu bieten und• das Auskommen im hohen Alter zu sichern. <p>Dieses soziale System wird durch Steuern und Abgaben bezahlt, vor allem durch die Einkommens- und Mehrwertsteuer. Je höher das Einkommen, desto höher die Steuern und Abgaben.</p> <p>Weiter</p>							
<h3>Willkommen in Novaland 4</h3> <p>In Novaland kommt es vor, dass manche Dienstleistungen des Staates nur erbracht werden, wenn Bürgerinnen oder Bürger den betreffenden Staatsbediensteten unter der Hand eine Zahlung machen.</p> <p>Weiter</p>	<h3>Willkommen in Novaland 4</h3> <p>In Novaland kommt es vor, dass manche Dienstleistungen des Staates nur erbracht werden, wenn Bürgerinnen oder Bürger den betreffenden Staatsbediensteten unter der Hand eine Zahlung machen.</p> <p>In einer Umfrage sagten sechs von zehn Befragten in Novaland, dass sie bereit seien, eine Zahlung unter der Hand zu machen, um einen schnelleren Zugang oder eine bessere Qualität bei staatlichen Dienstleistungen zu erhalten.</p> <p>Sind Sie bereit, unter der Hand Zahlungen an Staatsbedienstete zu machen?</p> <table border="1"><thead><tr><th>Antwort</th><th>Prozent</th></tr></thead><tbody><tr><td>Ja</td><td>60%</td></tr><tr><td>Nein</td><td>40%</td></tr></tbody></table> <p>Antworten</p> <p>Weiter</p>	Antwort	Prozent	Ja	60%	Nein	40%
Antwort	Prozent						
Ja	60%						
Nein	40%						

Mittwoch, Tag 5 von 9

Heute wollen Sie mit einigen Freunden etwas Zeit verbringen und ein leckeres Abendessen genießen. Wie üblich gehen die Vorschläge Ihrer Freunde in unterschiedliche Richtungen. Ihre Stadt bietet viele Möglichkeiten, aber um den Geschmack und die Essensvorlieben aller zu treffen, stehen drei Lokale in der engeren Auswahl.

Ihre Freunde fragen Sie, welches Restaurant Sie am liebsten besuchen würden:

Ein Barbecue-Restaurant, das viele deftige Speisen in einem rustikalen Ambiente anbietet.

Ein Sushi-Restaurant mit einer modernen, minimalistischen Einrichtung.

Ein Restaurant mit italienischer Küche und einem großen Außenbereich.

Weiter

Mittwoch, Tag 5 von 9



Sie haben sich für das italienische Restaurant entschieden und genießen dort mit Ihren Freunden ein leckeres Abendessen. Klicken Sie auf Weiter, um den nächsten Tag in Novaland zu beginnen.

Weiter

Kindergarten Scenario

Positive

Montag, Tag 3 von 9



Sie suchen für Ihr 4-jähriges Kind einen Platz in einem örtlichen Kindergarten. In Novaland werden die staatlichen Kindergartenplätze von der örtlichen Familienserviceagentur (FSA) vergeben. Sie füllen die Formulare aus und gehen zur örtlichen FSA. Sie warten eine Weile in der Schlange. Als Sie an der Reihe sind, betreten Sie das Büro der FSA-Mitarbeiterin und erklären ihr Ihre Situation. Sie beginnt, in der Datenbank nach freien Kindergartenplätzen zu suchen.

Nach einer gründlichen Suche in der Datenbank teilt Ihnen die Mitarbeiterin mit, dass es einen freien Platz in einem Kindergarten in Ihrer Nähe gebe. Der Kindergarten werde Ihr Kind in einigen Wochen aufnehmen können. Die FSA-Mitarbeiterin händigt Ihnen die erforderlichen Unterlagen aus, die Sie für die verbindliche Anmeldung vor Ort benötigen.

Ausgehend von dieser Situation möchten wir Sie bitten, die Erfahrung mit einer Note von 1 bis 5 zu bewerten, wobei 1 bedeutet, dass die Qualität der Dienstleistung sehr gut ist, und 5, dass sie sehr schlecht ist.

- 1 Sehr gut
- 2
- 3
- 4
- 5 Sehr schlecht

Weiter

Negative

Dienstag, Tag 4 von 9



Sie suchen für Ihr 4-jähriges Kind einen Platz in einem örtlichen Kindergarten. In Novaland werden die staatlichen Kindergartenplätze von der örtlichen Familienserviceagentur (FSA) vergeben. Sie füllen die Formulare aus und gehen zur örtlichen FSA. Sie warten eine Weile in der Schlange. Als Sie an der Reihe sind, betreten Sie das Büro der FSA-Mitarbeiterin und erklären ihr Ihre Situation. Sie beginnt, in der Datenbank nach freien Kindergartenplätzen zu suchen.

Nach einer gründlichen Suche in der Datenbank teilt Ihnen die Mitarbeiterin mit, dass es keinen freien Platz in einem Kindergarten in Ihrer Nähe gebe. Alle Kindergärten seien voll und die einzige Möglichkeit sei, Ihr Kind auf eine Warteliste zu setzen. Sie sagt Ihnen, dass es ein Jahr dauern könne, bis ein Platz frei werde.

Ausgehend von dieser Situation möchten wir Sie bitten, die Erfahrung mit einer Note von 1 bis 5 zu bewerten, wobei 1 bedeutet, dass die Qualität der Dienstleistung sehr gut ist, und 5, dass sie sehr schlecht ist.

- 1 Sehr gut
- 2
- 3
- 4
- 5 Sehr schlecht

Weiter

Corrupt

Freitag, Tag 7 von 9



Sie suchen für Ihr 4-jähriges Kind einen Platz in einem örtlichen Kindergarten. In Novaland werden die staatlichen Kindergartenplätze von der örtlichen Familienserviceagentur (FSA) vergeben. Sie füllen die Formulare aus und gehen zur örtlichen FSA. Sie warten eine Weile in der Schlange. Als Sie an der Reihe sind, betreten Sie das Büro der FSA-Mitarbeiterin und erklären ihr Ihre Situation. Sie beginnt, in der Datenbank nach freien Kindergartenplätzen zu suchen.

Nach einer gründlichen Suche in der Datenbank teilt Ihnen die Mitarbeiterin mit, dass es keinen freien Platz in einem Kindergarten in Ihrer Nähe gebe. Alle Kindergärten seien voll und die einzige Möglichkeit sei, Ihr Kind auf eine Warteliste zu setzen. Sie sagt Ihnen, dass es ein Jahr dauern könne, bis ein Platz frei werde.

Die Mitarbeiterin sagt, dass dies der einzige offizielle Weg sei. Allerdings könne sie Ihnen vielleicht helfen, wenn Sie ihr eine Zahlung unter der Hand machen. In diesem Fall könne ihr Kind schon in einigen Wochen einen Platz in einem Kindergarten in Ihrer Nähe erhalten.

Bitte lesen Sie den folgenden Abschnitt erneut:

Nach einer gründlichen Suche in der Datenbank teilt Ihnen die Mitarbeiterin mit, dass es keinen freien Platz in einem Kindergarten in Ihrer Nähe gebe. Alle Kindergärten seien voll und die einzige Möglichkeit sei, Ihr Kind auf eine Warteliste zu setzen. Sie sagt Ihnen, dass es ein Jahr dauern könne, bis ein Platz frei werde. Die Mitarbeiterin sagt, dass dies der einzige offizielle Weg sei. Allerdings könne sie Ihnen vielleicht helfen, wenn Sie ihr eine Zahlung unter der Hand machen. In diesem Fall könne ihr Kind schon in einigen Wochen einen Platz in einem Kindergarten in Ihrer Nähe erhalten.

Sind Sie bereit, der Mitarbeiterin eine Zahlung unter der Hand zu machen?

- Ja
- Nein

Bitte geben Sie an, ob die Regierung in diesem Bereich weniger oder mehr Geld ausgeben sollte. Die Regierung sollte für diesen Bereich...

(Bedenken Sie dabei, dass höhere Ausgaben auch höhere Steuern erfordern können.)

- 1 Sehr viel mehr ausgeben.
- 2
- 3 Die Ausgaben auf dem jetzigen Stand halten.
- 4
- 5 Sehr viel weniger ausgeben.

Weiter

Montag, Tag 3 von 9

Sie haben heute versucht, einen Kindergartenplatz für Ihr Kind zu finden. Ein Kindergarten in Ihrer Nähe nimmt Ihr Kind in einigen Wochen auf. Klicken Sie auf Weiter, um den nächsten Tag in Novaland zu beginnen.

Weiter

Dienstag, Tag 4 von 9

Sie haben heute versucht, einen Kindergartenplatz für Ihr Kind zu finden. Kein Kindergarten in der Nähe konnte Ihr Kind aufnehmen. Sie müssen bis zu einem Jahr warten, bis ein Platz frei wird. Klicken Sie auf Weiter, um den nächsten Tag in Novaland zu beginnen.

Weiter

Freitag, Tag 7 von 9

Sie haben heute versucht, einen Kindergartenplatz für Ihr Kind zu finden. Sie haben der Mitarbeiterin eine Zahlung unter der Hand gemacht. Ein Kindergarten in Ihrer Nähe nimmt Ihr Kind in einigen Wochen auf. Klicken Sie auf Weiter, um den nächsten Tag in Novaland zu beginnen.

Weiter

Samstag, Tag 8 von 9



Während Sie durch die Stadt gehen, spricht Sie eine Person an. Sie hält ein Klemmbrett in der Hand und fragt, ob Sie kurz Zeit hätten, um einige Fragen zu beantworten. Sie stimmen zu, und die Interviewerin fragt:

Auf einer Skala von 0 bis 10, wie sehr vertrauen Sie persönlich der Regierung von Novaland? 0 bedeutet, dass Sie der Regierung überhaupt nicht vertrauen, und 10 bedeutet, dass Sie ihr vollkommen vertrauen.

- 0 Vertraue überhaupt nicht
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Vertraue vollkommen

Weiter

Samstag, Tag 8 von 9

Die Interviewerin fragt weiter:

In Novaland gibt es Bestechung, wenn Menschen mit dem Staat in Berührung kommen. Was schätzen Sie: wie häufig kommt das vor? Stellen Sie sich vor, es gibt 100 Situationen, in denen Menschen etwas vom Staat oder einer vom Staat finanzierten Stelle wollen z.B. eine Geldzahlung oder eine Dienstleistung. Was schätzen Sie: in wie vielen davon kommt es zu einer Bestechung der Bediensteten?

Bitte nennen Sie eine Zahl zwischen 0 und 100.

Weiter

Zuletzt fragt die Interviewerin:

Viele Sozialleistungen des novaländischen Staates werden aus Steuergeldern finanziert. Wenn sich der novaländische Staat zwischen zwei Alternativen entscheiden müsste, was sollte er wählen?

Entweder die Steuern erhöhen und mehr für Sozialleistungen ausgeben oder die Steuern senken und weniger für Sozialleistungen ausgeben?


0 bedeutet, dass der novaländische Staat die Steuern senken und weniger für Sozialleistungen ausgeben sollte. 10 bedeutet, dass der Staat die Steuern erhöhen und mehr für Sozialleistungen ausgeben sollte. Mit den Zahlen dazwischen können Sie Ihre Meinung abstimmen.

- 0 Der novaländische Staat sollte die Steuern senken und weniger für Sozialleistungen ausgeben
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Der novaländische Staat sollte die Steuern erhöhen und mehr für Sozialleistungen ausgeben

Weiter

References of AI-generated pictures

All images that were used in the study and that have not been created by the authors themselves were generated using artificial intelligence. The following table lists the references of the Ai-images that were included in the vignettes and the quiz pages within Novaland.

Image	Reference
	<p>OpenAI. Response to 'A cozy, sunlit breakfast table in a German setting, with slight variations. The table features breakfast items such as fresh bread rolls, butter, cheese, sliced meats, and a cup of coffee or tea. A newspaper is open on the table, displaying only the word 'Quiz' in bold letters with no additional text or images on the page. The room is filled with warm sunlight streaming through a nearby window, with subtle changes in the arrangement of items, creating a slightly different but equally relaxed and inviting atmosphere.' Image Creator of ChatGPT-4o, 23.09.2024. https://chatgpt.com/share/67ee3df9-c11c-800f-a58c-1719e9487b84</p>



OpenAI. Response to 'A view from approximately 2 meters above the ground, looking down on an upright washing machine standing on the floor. The washing machine has nothing on top, just its clean surface. The room features typical laundry room elements such as shelves, detergent, and a functional atmosphere. The perspective gives a clear view of the washing machine and the surrounding items in the room from a slightly elevated angle. The ladders, pipes, cables, tools, and carpet are removed from the scene, leaving only the bare floor.' Image Creator of ChatGPT-4o, 23.09.2024. <https://chatgpt.com/share/67ee3d8f-b448-800f-9dec-24537b8bd86e>



OpenAI. Response to 'A realistic image of a very simple and modest standing reception counter in a small doctor's office in a fictional country similar to Germany. The scene is basic and utilitarian, with minimalistic, plain furniture that is purely functional. The walls have a few simple medical illustrations, such as anatomical diagrams. The reception area is clean and very basic, with no stylish elements, just essential furniture. A small potted plant is placed on the counter, along with a few pens in a holder and a stack of patient files. The lighting is soft and warm, adding a touch of warmth to the otherwise sterile environment. There are no people, no flags visible in the image.' Image Creator of ChatGPT-4o, 23.09.2024. <https://chatgpt.com/share/67ee3db7-0804-800f-87b6-1ba1d6309ff4>



OpenAI. Response to 'A smaller and less stylish office in a fictional country where passports are issued. The office is functional and somewhat plain, with simple furniture and a utilitarian design. The walls feature plain maps, with no references to Germany, emblems, crests, or text visible. The desk has a basic computer monitor and a few official documents, with no high-tech gadgets. The lighting is standard, giving the room a more subdued and ordinary atmosphere. No people are present, maintaining the quiet and official nature of the setting.' Image Creator of ChatGPT-4o,

	<p>23.09.2024. https://chatgpt.com/share/67ee3df9-c11c-800f-a58c-1719e9487b84</p>
	<p>OpenAI. Response to 'An office where kindergarten places are centrally allocated, featuring an organized and official setting with desks and filing cabinets. The walls have a few colorful children's drawings or paintings displayed, adding a cheerful touch. In one corner of the room, there's a small play area for toddlers, with toys and a soft mat. The scene is quiet, with no people present, creating a sense of waiting or preparation. There are no flags or text visible in the room.' Image Creator of ChatGPT-4o, 23.09.2024. https://chatgpt.com/share/67ee3df9-c11c-800f-a58c-1719e9487b84</p>
	<p>OpenAI. Response to 'A woman holding a clipboard with a questionnaire and a pen enters the frame from the right side. Only the hands and arms of the woman are visible in the image. The background shows a European pedestrian zone on a Saturday, with European-style architecture, cobblestone streets, small shops, and cafes. The scene includes a few pedestrians walking around, creating a lively yet relaxed atmosphere. The day is still a beautiful summer day with clear skies and bright sunlight. The focus remains on the clipboard and hands, with the background slightly out of focus.' Image Creator of ChatGPT-4o, 23.09.2024. https://chatgpt.com/share/67ee3cd3-bf10-800f-819f-0d74fd2f47be</p>

A3 Effect of non-state related Handywoman scenario

The models with dependent variables welfare state support, trust in the government of Novaland, and on the vote in the referendum show no significant effects of experiencing the negative or positive non-state Handywoman scenario on any outcome measure.

SI Table 4: Effects of the non-state scenario on welfare demand, political trust, and referendum outcome

	Welfare state support	Trust to N2 gov	Referendum outcome
Negative Handywoman Scenario	-0.165 (0.178)	0.116 (0.177)	0.088 (0.145)
Positive Handywoman Scenario	0.018 (0.163)	-0.107 (0.162)	0.122 (0.133)
Number of Positive Outcomes	-0.157* (0.066)	0.447*** (0.066)	-0.165** (0.054)
Num. Obs.	1558	1558	1558
R-squared	0.066	0.046	
Biographic Controls	YES	YES	YES, w/o age

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

A4 Effects of Service Level and Social Bribing Norm on Support for Domain-Specific State Spending

SI Table 5: Effects of Service Level and Social Bribing Norm on Domain-Specific State

Spending

	Domain-Specific State Spending Model 1	Domain-Specific State Spending Model 2	Domain-Specific State Spending Model 3	Domain-Specific State Spending Model 4	Domain-Specific State Spending Model 5	Domain-Specific State Spending Model 6
(Intercept)	1.972** (0.721)	1.948** (0.726)	1.945** (0.726)	1.967** (0.721)	1.978** (0.721)	2.001** (0.720)
Service Quality: Negative	0.161*** (0.011)	0.161*** (0.011)	0.175*** (0.012)	0.161*** (0.011)	0.164*** (0.013)	0.163*** (0.013)
Service Quality: Corrupt	0.106*** (0.011)	0.106*** (0.011)	0.123*** (0.012)	0.106*** (0.011)	0.101*** (0.013)	0.107*** (0.013)
Vignette Number	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)	0.006* (0.003)
No. Negative Services Before	-0.007 (0.009)	-0.007 (0.009)	-0.007 (0.009)	-0.007 (0.009)	-0.007 (0.009)	-0.007 (0.009)
No. Corrupt Services Before	0.012 (0.008)	0.012 (0.008)	0.012 (0.008)	0.012 (0.008)	0.012 (0.008)	0.012 (0.008)
Left	0.019* (0.010)	0.019* (0.010)	0.020* (0.010)	0.019+ (0.010)	0.019+ (0.010)	0.020+ (0.012)
Right	0.023+ (0.014)	0.023+ (0.014)	0.023+ (0.014)	0.023+ (0.014)	0.023+ (0.014)	0.026 (0.017)
Real-life Corruption Experience (own)		-0.003 (0.009)	0.022+ (0.012)			
Social Norm on Bribing				0.011 (0.008)	0.010 (0.011)	
Service Quality: Corrupt x Real-life Corruption Experience			-0.052** (0.017)			
			-0.048**			

	Domain-Specific State Spending Model 1	Domain-Specific State Spending Model 2	Domain-Specific State Spending Model 3	Domain-Specific State Spending Model 4	Domain-Specific State Spending Model 5	Domain-Specific State Spending Model 6
Service Quality: Negative x Real-life Corruption Experience			(0.018)			
Service Quality: Corrupt x Social Bribing Norm					0.009 (0.016)	
Service Quality: Negative x Social Bribing Norm					-0.006 (0.016)	
Service Quality: Corrupt x Left						0.010 (0.019)
Service Quality: Corrupt x Right						-0.026 (0.026)
Service Quality: Negative x Left						-0.014 (0.018)
Service Quality: Negative x Right						0.011 (0.026)
Age	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)
Female (ref. Male)	0.015 (0.010)	0.015 (0.010)	0.015 (0.010)	0.015 (0.010)	0.015 (0.010)	0.015 (0.010)
Diverse (ref. Male)	-0.127+ (0.069)	-0.128+ (0.069)	-0.129+ (0.069)	-0.128+ (0.069)	-0.128+ (0.069)	-0.128+ (0.069)
Employment: Part-time working	-0.011 (0.013)	-0.011 (0.013)	-0.012 (0.013)	-0.012 (0.013)	-0.012 (0.013)	-0.012 (0.013)
Employment: Unemployed and searching	-0.049+ (0.025)	-0.049+ (0.025)	-0.049+ (0.025)	-0.050* (0.025)	-0.051* (0.025)	-0.049* (0.025)
Employment: Self- employed	0.000 (0.022)	0.000 (0.022)	0.000 (0.022)	0.000 (0.022)	0.000 (0.022)	0.000 (0.022)
Employment: Still in training	0.008 (0.016)	0.008 (0.016)	0.007 (0.016)	0.008 (0.016)	0.008 (0.016)	0.008 (0.016)

	Domain- Specific State Spendin g Model 1	Domain- Specific State Spendin g Model 2	Domain- Specific State Spendin g Model 3	Domain- Specific State Spendin g Model 4	Domain- Specific State Spendin g Model 5	Domain- Specific State Spendin g Model 6
Employment: Pensioner	-0.022 (0.016)	-0.022 (0.016)	-0.022 (0.016)	-0.022 (0.016)	-0.023 (0.016)	-0.023 (0.016)
Employment: Housewife/Househusband	-0.032 (0.037)	-0.032 (0.037)	-0.033 (0.037)	-0.033 (0.037)	-0.034 (0.037)	-0.033 (0.037)
Employment: Currently unable to work	-0.014 (0.032)	-0.014 (0.032)	-0.013 (0.032)	-0.015 (0.032)	-0.016 (0.032)	-0.014 (0.032)
Employment: Other	0.048 (0.051)	0.048 (0.051)	0.047 (0.051)	0.049 (0.051)	0.049 (0.051)	0.048 (0.050)
Education: Without elementary/secondary school leaving certificate	-0.047 (0.053)	-0.047 (0.053)	-0.048 (0.053)	-0.045 (0.053)	-0.044 (0.053)	-0.048 (0.053)
Voluntary/secondary school certificate, 8th or 9th grade, Polytechnic High School (POS) leaving after the 8th grade	0.063* (0.031)	0.063* (0.031)	0.061+ (0.031)	0.064* (0.031)	0.065* (0.031)	0.063* (0.031)
Real school diploma, 10th grade diploma, diploma from the Polytechnic High School (POS) of the GDR	0.042 (0.029)	0.042 (0.029)	0.039 (0.029)	0.043 (0.029)	0.043 (0.029)	0.042 (0.029)
Fachuniversity entrance qualification (12th grade)	0.036 (0.030)	0.036 (0.030)	0.034 (0.030)	0.037 (0.030)	0.038 (0.030)	0.036 (0.029)
The general or subject- specific university entrance qualification (12th or 13th grade, extended secondary school (EOS), also EOS with apprenticeship)	0.021 (0.029)	0.021 (0.029)	0.019 (0.029)	0.022 (0.029)	0.022 (0.029)	0.021 (0.029)
Income [500 Euros]	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)
Num. Obs.	3939	3939	3939	3939	3939	3939
R-squared	0.116	0.116	0.119	0.116	0.116	0.116

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

Domain- Specific State Spendin g Model 1	Domain- Specific State Spendin g Model 2	Domain- Specific State Spendin g Model 3	Domain- Specific State Spendin g Model 4	Domain- Specific State Spendin g Model 5	Domain- Specific State Spendin g Model 6
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Random Intercept Models. Reference category for the employment variable is 'Full Time'. For the education variable it is 'I am still a student'

A5 Cumulative effects of service quality on general welfare demand

SI Table 6: Cumulative effects of service quality on general welfare demand

	Welfare Demand Model 1	Welfare Demand Model 2	Welfare Demand Model 3	Welfare Demand Model 4	Welfare Demand Model 5	Welfare Demand Model 6
No. Service Quality: Negative	0.006 (0.006)					
No. Service Quality: Corrupt		0.007 (0.006)				
No. Service Quality: Positive			-0.012* (0.006)	-0.012* (0.006)	-0.009 (0.008)	-0.020** (0.007)
Social Bribing Norm				-0.007 (0.012)	0.007 (0.029)	
Left	0.067*** (0.014)	0.067*** (0.014)	0.066*** (0.014)	0.067*** (0.014)	0.066*** (0.014)	0.030 (0.033)
Right	-0.036+ (0.019)	-0.036+ (0.019)	-0.035+ (0.019)	-0.036+ (0.019)	-0.036+ (0.019)	-0.087+ (0.046)
No. Service Quality: Positive x Social Bribing Norm					-0.006 (0.011)	
No. Service Quality: Positive x Left						0.016 (0.013)
No. Service Quality: Positive x Right						0.022 (0.018)
Age	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.001** (0.001)	-0.001* (0.001)
Female (ref. Male)	-0.018 (0.015)	-0.018 (0.014)	-0.018 (0.014)	-0.017 (0.014)	-0.017 (0.014)	-0.018 (0.014)
Diverse (ref. Male)	-0.160 (0.104)	-0.168 (0.104)	-0.166 (0.104)	-0.165 (0.104)	-0.164 (0.104)	-0.167 (0.104)
Employment: Part-time working	-0.003 (0.019)	-0.001 (0.019)	-0.002 (0.019)	-0.002 (0.019)	-0.002 (0.019)	-0.001 (0.019)
Employment: Unemployed and searching	0.102** (0.034)	0.097** (0.034)	0.101** (0.034)	0.102** (0.034)	0.102** (0.034)	0.101** (0.034)
Employment: Self-employed	0.013 (0.031)	0.011 (0.031)	0.011 (0.031)	0.011 (0.031)	0.011 (0.031)	0.012 (0.031)
Employment: Still in training	0.026 (0.022)	0.027 (0.022)	0.028 (0.022)	0.028 (0.022)	0.028 (0.022)	0.026 (0.022)
Employment: Pensioner	0.017 (0.023)	0.018 (0.023)	0.017 (0.023)	0.017 (0.023)	0.016 (0.023)	0.017 (0.023)
Employment: Housewife/Househusband	0.094+ (0.050)	0.093+ (0.050)	0.094+ (0.050)	0.095+ (0.050)	0.094+ (0.050)	0.093+ (0.050)
Employment: Currently unable to work	0.070 (0.045)	0.070 (0.045)	0.069 (0.045)	0.070 (0.045)	0.070 (0.045)	0.071 (0.045)

	Welfare Demand Model 1	Welfare Demand Model 2	Welfare Demand Model 3	Welfare Demand Model 4	Welfare Demand Model 5	Welfare Demand Model 6
Employment: Other	0.102 (0.072)	0.098 (0.072)	0.098 (0.072)	0.098 (0.072)	0.098 (0.072)	0.103 (0.072)
Education: Without elementary/secondary school leaving certificate	0.045 (0.073)	0.046 (0.073)	0.048 (0.073)	0.046 (0.073)	0.046 (0.073)	0.044 (0.073)
Voluntary/secondary school certificate, 8th or 9th grade, Polytechnic High School (POS) leaving after the 8th grade	0.117** (0.043)	0.115** (0.043)	0.116** (0.043)	0.116** (0.043)	0.116** (0.043)	0.114** (0.043)
Real school diploma, 10th grade diploma, diploma from the Polytechnic High School (POS) of the GDR	0.126** (0.040)	0.124** (0.040)	0.126** (0.040)	0.125** (0.040)	0.125** (0.040)	0.124** (0.040)
Fachuniversity entrance qualification (12th grade)	0.089* (0.041)	0.087* (0.041)	0.089* (0.041)	0.088* (0.041)	0.088* (0.041)	0.087* (0.041)
The general or subject-specific university entrance qualification (12th or 13th grade, extended secondary school (EOS), also EOS with apprenticeship)	0.118** (0.040)	0.115** (0.040)	0.117** (0.040)	0.116** (0.040)	0.116** (0.040)	0.115** (0.040)
Income [500 Euros]	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)
Num. Obs.	1535	1535	1535	1535	1535	1535
R-squared	0.062	0.062	0.064	0.064	0.064	0.065
Socio-demographic Controls	YES	YES	YES	YES	YES	YES

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

A6 Cumulative effects of service quality on political trust

SI Table 7: Cumulative effects of service quality on political trust

	Political Trust Model 1	Political Trust Model 2	Political Trust Model 3	Political Trust Model 4	Political Trust Model 5	Political Trust Model 6
No. Service Quality: Negative	-0.012*					
	(0.006)					
No. Service Quality: Corrupt		-0.034***				
		(0.006)				
No. Service Quality: Positive			0.041***	0.041***	0.044***	0.042***
			(0.006)	(0.006)	(0.008)	(0.007)
Social Bribing Norm				-0.008	0.005	
				(0.012)	(0.029)	
Left	0.017	0.017	0.018	0.018	0.018	0.039
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.032)
Right	-0.011	-0.011	-0.012	-0.012	-0.012	-0.049
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.046)
No. Service Quality: Positive x Social Bribing Norm					-0.005	
					(0.011)	
No. Service Quality: Positive x Left						-0.009
						(0.013)
No. Service Quality: Positive x Right						0.016
						(0.018)
Age	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Female (ref. Male)	-0.031*	-0.031*	-0.033*	-0.033*	-0.033*	-0.034*
	(0.015)	(0.015)	(0.014)	(0.014)	(0.014)	(0.014)
Diverse (ref. Male)	0.073	0.100	0.088	0.089	0.089	0.087
	(0.105)	(0.104)	(0.103)	(0.104)	(0.104)	(0.103)
Employment: Part-time working	-0.005	-0.009	-0.005	-0.005	-0.005	-0.005
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Employment: Unemployed and searching	0.004	0.018	0.002	0.003	0.003	0.003
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
Employment: Self-employed	-0.025	-0.019	-0.022	-0.022	-0.022	-0.021
	(0.032)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
Employment: Still in training	0.007	0.002	-0.002	-0.001	-0.001	-0.001
	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Employment: Pensioner	-0.029	-0.032	-0.028	-0.028	-0.029	-0.028
	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)
Employment: Housewife/Househusband	-0.097+	-0.097+	-0.099*	-0.098+	-0.098+	-0.098*
	(0.051)	(0.050)	(0.050)	(0.050)	(0.050)	(0.050)
Employment: Currently unable to work	0.022	0.021	0.025	0.026	0.026	0.024

	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)
Employment: Other	-0.170*	-0.156*	-0.159*	-0.160*	-0.159*	-0.157*
	(0.073)	(0.072)	(0.072)	(0.072)	(0.072)	(0.072)
Education: Without elementary/secondary school leaving certificate	0.007	0.001	-0.001	-0.003	-0.003	-0.003
	(0.074)	(0.073)	(0.073)	(0.073)	(0.073)	(0.073)
Voluntary/secondary school certificate, 8th or 9th grade, Polytechnic High School (POS) leaving after the 8th grade	-0.025	-0.018	-0.025	-0.026	-0.026	-0.026
	(0.044)	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)
Real school diploma, 10th grade diploma, diploma from the Polytechnic High School (POS) of the GDR	-0.020	-0.012	-0.020	-0.021	-0.021	-0.021
	(0.041)	(0.040)	(0.040)	(0.040)	(0.040)	(0.040)
Fachuniversity entrance qualification (12th grade)	-0.025	-0.016	-0.026	-0.027	-0.027	-0.027
	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)
The general or subject-specific university entrance qualification (12th or 13th grade, extended secondary school (EOS), also EOS with apprenticeship)	-0.010	0.001	-0.009	-0.009	-0.010	-0.010
	(0.040)	(0.040)	(0.040)	(0.040)	(0.040)	(0.040)
Income [500 Euros]	0.001	0.000	0.000	0.000	0.000	0.000
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Num. Obs.	1535	1535	1535	1535	1535	1535
R-squared	0.017	0.034	0.047	0.047	0.047	0.048
Socio-demographic Controls	YES	YES	YES	YES	YES	YES
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001						

A7 Evaluating pre-registered hypotheses

Based on our theoretical framework, propositions, and study design, we preregistered the following hypotheses to guide our analysis of effects on the dependent variables, including demand for state spending and political trust. We distinguish between immediate and cumulative effects, as these differ not only in focus but also in analytical approach; immediate effects allow for within-subject analysis, while cumulative effects require between-subject comparisons.

Hypotheses to Proposition 1: Immediate Demand for State Intervention in the Face of Negative or Corrupt Experiences

These analyses use a multiple regression framework with one observation per vignette combination.

State Experiences and Preference for State Spending

- H1. Participants in the negative experience group will show a higher average preference for state spending compared to those in the positive experience group.
- H2. Participants in the negative experience group will also exhibit a higher average preference for state spending compared to those in the corrupt experience group.
- H3. The more negative or corrupt experiences participants have encountered in previous interactions with the state before a vignette, the lower their average value on the state spending variable.

Hypotheses to Proposition 2: Cumulative Effect of State Performance on Political Trust and General Demand for the Welfare State

These analyses use a multiple regression framework with one observation per individual.

Cumulative State Experiences and Political Trust

- H4. The greater the number of negative service experiences participants encounter, the lower their average level of political trust in the government.
- H5. The greater the number of corrupt service experiences participants encounter, the lower their average level of political trust in the government.

Cumulative State Experiences and Demand for Welfare State Efforts

- H6. The more negative service experiences participants encounter, the higher their average demand for increased welfare state efforts.

H7. The more corrupt service experiences participants encounter, the lower their average demand for increased welfare state efforts.

Hypotheses to Proposition 3: The Effects of Ideology and Social Norms

Social Norm on Bribing and State Spending

H8. Participants in the high social norm on bribing group will have a lower overall mean preference for state spending compared to those in the no-information social norm group.

Moderation by Real-Life Left-Right Self-Placement

H9. Among individuals who place themselves more to the left on the political spectrum, the causal effects of state experiences on state spending preferences are expected to be stronger than among those who place themselves more to the right.

H10. The positive marginal effect of negative service experiences on demand for increased welfare state efforts is expected to be larger for participants who place themselves on the left of the left-right spectrum compared to those on the right.

Results of Hypotheses Tests

Testing Hypotheses related to Proposition 1: Immediate Demand for State

Intervention in the Face of Negative or Corrupt Experiences

SI Table 8 presents the effects of service quality and social bribing norms on participants' willingness to support domain-specific state spending. Across all four models, we estimate how the randomly assigned level of service in participants' interactions with the state influences their support for increased spending in specific welfare state domains. The handywoman scenario was not used for this estimation. The models are specified as random intercept OLS with standard errors grouped at the participant level. In all models reported, we control for a range of observational, socio-demographic factors to account for individual-level characteristics that may influence responses. Specifically, each model includes controls for age, gender, employment status, education level, and personal income.

Model 1 tests the direct influence of service quality experiences on support for domain-specific state spending: both negative and corrupt service quality are associated with a significant increase in spending preferences compared to the baseline positive service quality. This effect remains robust across Models 2, 3, and 4, **supporting Hypothesis 1**, which posits that participants exposed to negative service interactions would demonstrate a stronger preference for increased spending than those experiencing positive service quality. Additionally, **Hypothesis 2 is confirmed**, as participants in

the negative experience group show a significantly higher spending preference than those in the corrupt experience group. Negative service experiences exert a slightly stronger effect on spending preferences than corrupt ones. This difference suggests that while both poor service quality and corruption heighten the demand for state intervention, negative service quality has a more pronounced effect on individuals' willingness to support state spending.

The longer participants spend in Novaland, as shown by the vignette number (which roughly corresponds to the 'day' they are in), the more they tend to support increased state spending. This positive effect of vignette number suggests a cumulative response to their experiences, gradually reinforcing their demand for greater state involvement over time, controlling for the service quality of their experiences.

Hypothesis 3, which anticipated that a higher number of prior negative or corrupt experiences would decrease support for state spending, **is not supported** by the data in any model. The coefficients for negative and corrupt experiences before a given one are insignificant across all models, indicating that previous exposure to these types of experiences does not have a significant effect on spending preferences in the context of this study.

Taken together, we find support for the proposition for immediate effects of service quality experiences, but no effects of past experiences.

SI Table 8: Effects of Service Level and Social Bribing Norm on Support for Domain-Specific State Spending

	Model 1	Model 2	Model 3	Model 4
(Intercept)	5.914*	6.025*	5.956*	5.925*
	(2.633)	(2.630)	(2.658)	(2.634)
Service Quality Experience: Negative	0.644***	0.660***	0.697***	0.641***
	(0.041)	(0.049)	(0.046)	(0.051)
Service Quality Experience: Corrupt	0.431***	0.428***	0.494***	0.411***
	(0.041)	(0.048)	(0.047)	(0.051)
Vignette Number	0.030***	0.029***	0.029***	0.029***
	(0.009)	(0.009)	(0.009)	(0.009)
Negative Service Quality Experiences Before	-0.042	-0.041	-0.043	-0.041
	(0.031)	(0.031)	(0.031)	(0.031)
Corrupt Service Quality Experiences Before	0.034	0.033	0.034	0.034
	(0.030)	(0.030)	(0.030)	(0.030)
Left	0.079*	0.082	0.081*	0.078*
	(0.036)	(0.043)	(0.036)	(0.036)
Right	0.099*	0.115*	0.102*	0.100*
	(0.049)	(0.058)	(0.049)	(0.049)

Real-life Corruption Experience			0.074 (0.041)	
Social Norm on Bribing				0.007 (0.037)
Corrupt Service Quality x Left	0.053 (0.071)			
Corrupt Service Quality x Right	-0.106 (0.099)			
Negative Service Quality x Left	-0.067 (0.069)			
Negative Service Quality x Right	0.029 (0.099)			
Corrupt Service Quality x Real-life Corruption Experience			-0.191** (0.066)	
Negative Service Quality x Real-life Corruption Experience			-0.178** (0.068)	
Corrupt Service Quality x Social Bribing Norm				0.039 (0.062)
Negative Service Quality x Social Bribing Norm				0.006 (0.062)
Num. Obs.	4674	4674	4674	4674
R-squared	0.107	0.108	0.110	0.107
Socio-demographic Controls	YES	YES	YES	YES
Results from Random Intercept Models showing estimates and standard errors in parentheses. p < 0.05, ** p < 0.01, *** p < 0.001				

Testing Hypotheses related to Proposition 2: Cumulative Effect of State Performance on Political Trust and General Demand for the Welfare State

We now shift our focus to the analysis of cumulative effects, which examines system-level outcomes, including trust in the Novaland government and general support for an expanded welfare state. For each of these dependent variables, we present four models (eight models in total) in SI Table 9, each estimated using heteroskedasticity-consistent (HC2) error-corrected OLS. We control for the same set of socio-demographic variables as we did at the vignette level to account for individual differences that may influence participants' responses. Specifically, each model includes controls for age, gender, employment status, education level, and personal income.

Hypothesis 4 predicted that a greater number of negative service experiences would correlate with lower levels of political trust. Political Trust Model 1 shows a negative but statistically insignificant effect of total number of negative service quality

experiences on political trust. This suggests that negative experiences alone do not significantly erode trust. However, Political Trust Model 3 reveals that positive experiences have a substantial positive effect on trust. By implication, this finding indicates that non-positive experiences likely dampen trust relative to positive interactions, giving **partial support to Hypothesis 4**.

Hypothesis 5 suggested that corrupt experiences would reduce political trust. This hypothesis is **clearly confirmed**, as shown by Political Trust Model 2, where the number of corrupt experiences has a strong negative association with trust. This significant effect implies that corruption in service interactions is particularly damaging to trust in the government, more so than simply negative experiences. This may indicate that participants are more sensitive to the corrupt nature of interactions than to poor service quality alone, underscoring the detrimental impact of perceived corruption on institutional trust.

Hypothesis 6 proposed that an increase in negative service experiences would lead to a greater demand for welfare state expansion. Welfare Demand Model 1 shows a positive but statistically insignificant effect of the number of negative service quality experiences on welfare state support. This suggests that, while negative experiences tend to increase support for expanded social benefits, the effect does not reach conventional levels of significance. Therefore, **Hypothesis 6 is not confirmed** by these results.

Hypothesis 7 proposed that an increase in corrupt service experiences would lead to a lower demand for welfare state expansion. Welfare Demand Model 2 instead shows a positive but statistically insignificant effect of the number of corrupt service quality experiences on welfare state support. This suggests that contrary to expectations, corrupt experiences tend to increase support for expanded social benefits, but the effect does not reach conventional levels of significance. Therefore, **Hypothesis 7 is not confirmed** by these results.

Taken together, we find evidence for proposition 2 regarding political trust, but not regarding welfare demand.

SI Table 9: Effects of overall service level on political trust and general welfare demand

	Political Trust 1	Political Trust 2	Political Trust 3	Political Trust 4	Welfare Demand 1	Welfare Demand 2	Welfare Demand 3	Welfare Demand 4
Number of Negative Outcomes	-0.110+ (0.059)				0.063 (0.059)			
Number of Corrupt Outcomes		-0.341*** (0.060)				0.078 (0.060)		
Number of Positive Outcomes			0.408*** (0.056)	0.423*** (0.074)			-0.128* (0.057)	-0.195** (0.074)

Positive Outcomes x Left				-0.114 (0.127)				0.135 (0.127)
Positive Outcomes x Right				0.156 (0.177)				0.217 (0.178)
Left	0.172 (0.136)	0.171 (0.135)	0.191 (0.134)	0.452 (0.320)	0.664*** (0.135)	0.666*** (0.134)	0.659*** (0.134)	0.349 (0.321)
Right	-0.111 (0.187)	-0.116 (0.185)	-0.126 (0.184)	-0.493 (0.453)	-0.351+ (0.185)	-0.351+ (0.185)	-0.347+ (0.185)	-0.855+ (0.455)
Social Norm on Bribing	-0.036 (0.118)	-0.049 (0.117)	-0.081 (0.116)	-0.083 (0.116)	-0.089 (0.117)	-0.089 (0.117)	-0.077 (0.117)	-0.075 (0.117)
Num. Obs.	1558	1558	1558	1558	1558	1558	1558	1558
R-squared	0.015	0.033	0.045	0.047	0.063	0.063	0.065	0.066
Socio-demographic Controls	YES	YES	YES	YES	YES	YES	YES	YES

Results from heteroskedasticity-consistent (HC2) error-corrected OLS Models showing estimates and standard errors in parentheses.

p < 0.05, ** p < 0.01, *** p < 0.001

Testing Hypotheses related to Proposition 3: The Effects of Ideology and Social Norms

Hypothesis 8, which proposed that participants exposed to a weak social norm on bribing would exhibit lower support for state spending, **is not confirmed**. As the following models show, there is neither a significant main effect of the social bribing norm on support for domain-specific public spending, nor a significant interaction effect between the social norm on bribing and the cumulative service quality experiences (SI Table 10). This suggests that information about prevalent bribing behaviors does not substantially alter participants' spending preferences in this context. The following tables show a shortened version of these models with the respective model comparisons using Likelihood-Ratio-Tests. All LR-Tests are insignificant, indicating that adding the social norm on bribing variable does not improve the model fit.

SI Table 10: Effects of the social bribing norm on support for domain-specific state spending, including interactions

	Domain-Specific State Spending Model 1	Domain-Specific State Spending Model 4	Domain-Specific State Spending Model 5
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Service Quality: Negative	0.161*** (0.011)	0.161*** (0.011)	0.164*** (0.013)
Service Quality: Corrupt	0.106*** (0.011)	0.106*** (0.011)	0.101*** (0.013)
Social Norm on Bribing		0.011 (0.008)	0.010 (0.011)
Service Quality: Corrupt x Social Bribing Norm			0.009 (0.016)
Service Quality: Negative x Social Bribing Norm			-0.006 (0.016)
Num. Obs.	3939	3939	3939
R-squared	0.116	0.116	0.116
Socio-demographic Controls	YES	YES	YES
P-value of LR-test with Domain-Specific State Spending Model 1		0.27	
P-value of LR-test with Domain-Specific State Spending Model 4			0.54

Note: Results from Random Intercept Models showing estimates and standard errors in parentheses. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; See SI Table 5 for the full regression results.

We also tested the effect if the social norm on bribing and its interaction with service quality on political trust. Again, both the main effects and the interaction effects of the social norm on bribing are insignificant, as SI Table 11 depicts. As above, adding the social norm on bribing variable does not improve model fit, as the LR-Tests suggest.

SI Table 11: Effects of the social bribing norm on political trust and welfare demand, including interactions

	Politic al Trust 3	Politic al Trust 4	Politic al Trust 5	Welfar e Deman d 3	Welfar e Deman d 4	Welfar e Deman d 5
No. Service Quality: Positive	0.041** * (0.006)	0.041** * (0.006)	0.044** * (0.008)	-0.012* (0.006)	-0.012* (0.006)	-0.009 (0.008)

Social Norm on Bribing		-0.008 (0.012)	0.005 (0.029)		-0.007 (0.012)	0.007 (0.029)
No. Service Quality:			-0.005			-0.006
Positive x Social Bribing Norm			(0.011)			(0.011)
Num. Obs.	1535	1535	1535	1535	1535	1535
R-squared	0.047	0.047	0.047	0.064	0.064	0.064
Socio-demographic Controls	YES	YES	YES	YES	YES	YES
P-value of LR-test with Political Trust 3/ Welfare Demand 3		0.52			0.58	
P-value of LR-test with Political Trust 4/ Welfare Demand 4			0.63			0.75

Note: Results from heteroskedasticity-consistent (HC2), error-corrected OLS models showing estimates and standard errors in parentheses. + p<0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; See SI Tables 6 and 7 for the full regression results.

Hypothesis 9, which predicted that individuals who place themselves further to the left would exhibit stronger reactions to state experiences (whether negative or corrupt) in their spending preferences, **is not supported**. While both left- and right-leaning participants tend to support higher spending than those in the middle, there is no significant interaction between political orientation and service quality, as SI Table 12 below shows, indicating that left-right self-placement does not moderate the impact of these experiences on domain-specific spending preferences. Also, adding these interactions does not improve the model fit (LR-Test p-value > 0.05)

SI Table 12: Interaction effects of political ideology with service quality on domain-specific state spending

	Domain-Specific State Spending Model 1	Domain-Specific State Spending Model 6
Service Quality: Negative	0.161*** (0.011)	0.163*** (0.013)
Service Quality: Corrupt	0.106*** (0.011)	0.107*** (0.013)
Left	0.019* (0.010)	0.020+ (0.012)

Right	0.023+ (0.014)	0.026 (0.017)
Service Quality: Corrupt x Left		0.010 (0.019)
Service Quality: Corrupt x Right		-0.026 (0.026)
Service Quality: Negative x Left		-0.014 (0.018)
Service Quality: Negative x Right		0.011 (0.026)
Num. Obs.	3939	3939
R-squared	0.116	0.116
Socio-demographic Controls	YES	YES
P-value of LR-test with Domain-Specific State Spending Model 1		0.79

Note: Results from Random Intercept Models showing estimates and standard errors in parentheses. + p<0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; See SI Table 5 for the full regression results.

Hypothesis 10 anticipated that left-leaning participants would respond more strongly to negative experiences by expressing higher support for welfare state expansion compared to right-leaning participants. To test this, we ran additional models (see SI Table 13) that included interactions between positive service quality experiences and participants' political orientation (Positive Service Quality Experiences x Left and Positive Service Quality Experiences x Right, position in the middle of political spectrum taken as a baseline), yet neither interaction term is statistically significant. Adding these interaction terms does also not improve the model fit of the smaller model. This suggests that political orientation does not significantly moderate the relationship between service experiences and welfare demand, leading us to **reject Hypothesis 10**.

SI Table 13: Interaction effects of political ideology with service quality on political trust and welfare demand

	Political Trust 3	Political Trust 6	Welfare Demand 3	Welfare Demand 6
No. Service Quality: Positive	0.041***	0.042***	-0.012*	-0.020**

	(0.006)	(0.007)	(0.006)	(0.007)
Left	0.018	0.039	0.066***	0.030
	(0.014)	(0.032)	(0.014)	(0.033)
Right	-0.012	-0.049	-0.035+	-0.087+
	(0.019)	(0.046)	(0.019)	(0.046)
No. Service Quality:		-0.009		0.016
Positive x Left		(0.013)		(0.013)
No. Service Quality:		0.016		0.022
Positive x Right		(0.018)		(0.018)
Num. Obs.	1535	1535	1535	1535
R-squared	0.047	0.048	0.064	0.065
Socio-demographic Controls	YES	YES	YES	YES
P-value of LR-test with Political Trust 3/ Welfare Demand 3		0.42		0.29

Note: Results from heteroskedasticity-consistent (HC2), error-corrected OLS models showing estimates and standard errors in parentheses. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; See SI Table 6 and 7 for the full regression results.

Taken together, the hypotheses tests indicate no evidence for a moderating effect of social norms and political ideology on our main treatment effects.

We estimated additional models to check whether our treatments affected participants' real-life attitudes. We found no significant effects of our in-experience variables on participants' answers in questions that were related to the real life, but one: We could observe cumulative effects of the service levels on the likelihood of

participants reporting to have experienced petty corruption in Germany in real-life personally. The more corrupt scenarios participants encountered, the more likely they were to report that they had already made such experiences, whereas more negative scenarios led to participants being less likely to report this. The number of positive scenarios encountered showed no significant effect here.