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Responsibility attribution, rewards, and sanctions for public service outcomes: experimental evidence on citizens' judgements

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ABSTRACT

This study examines how citizens attribute responsibility for public service outcomes and subsequently form judgements about rewards and sanctions – a theoretically acknowledged but empirically understudied two-phase process. A survey experiment ($N = 2,277$) in Germany compares citizen perceptions of political (mayors) versus administrative (service units) actors across improving and declining service performance scenarios. Service units received consistently high responsibility attribution regardless of outcome valence, while mayoral attribution was lower but increased in positive scenarios. Citizens show stronger sanction than reward judgements for both actors. Responsibility attribution more strongly predicts sanction judgements than reward judgements, with the latter being more influenced by individual predispositions.

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KEYWORDS Responsibility attribution; public accountability; performance information; mayors and service units; local public service delivery

Introduction

Accountability is fundamental to citizen-government interactions in democracies (Bovens 2007; Tilley and Hobolt 2011), functioning through multiple interdependent mechanisms and positioning citizens across different accountability levels (Papadopoulos 2023; Pérez-Durán 2024). These interactions rely not only on legitimate expectations but, importantly, on citizens' potential to hold elected officials and their administrative agents accountable for their actions and results (Anderson 2009; Bovens 2007). As Romzek

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(2015) succinctly notes, accountability ' . . . in its simplest sense, is answerability for performance, which, if it is working properly, should result in a reward or a sanction . . . ' (28).

However, for accountability mechanisms to function effectively, citizens must make informed decisions about whom to hold accountable and for what (Koliba 2025; Malhotra and Kuo 2008; Rudolph 2003). Despite its importance, we know surprisingly little about how citizens actually attribute responsibility to different actors. The latter is, however, a critical initial step that precedes judgements about rewards or sanctions. This gap matters because responsibility attribution itself is theoretically and empirically distinct from assigning blame or credit, yet most research focuses on the latter while underemphasizing the former.

Several barriers impede responsibility attribution and subsequent judgements. On the demand side, cognitive and affective biases, along with limited political knowledge, complicate the accurate attribution of responsibility. On the supply side, diffuse information and complex institutional arrangements often obscure clear lines of accountability (Arceneaux 2006; Hobolt and Tilley 2014; Jilke and Baekgaard 2020; Leland, Mohr, and Piatak 2021; Sievert et al. 2020; Van Slyke and Roch 2004).

To overcome these barriers, managerial approaches to accountability have significantly expanded the availability of performance information on public services (Barrows et al. 2016; Christensen and Lægreid 2015; Lewis 2019). The increased access to concrete performance data is expected to provide citizens with a more solid basis for evaluating public services and for holding governments accountable for outcomes (Mizrahi and Minchuk 2019; Damgaard and James 2024; Pérez-Durán and Grimmelikhuijsen 2024; Willems and van Dooren 2012). Consequently, there has been a sustained interest in understanding how the content, source as well as the framing and presentation format of performance information influences citizens' perceptions, expectations, and behaviours (Barrows et al. 2016; Cantarelli, Belle, and Hall 2023; Han 2024; O. James and Moseley 2014; Olsen 2015, 2017). In this regard, a recent meta-analysis revealed that performance information shows the greatest effect on citizens compared to other recipients. The findings highlight the potential of performance information to engage the public by increasing awareness, shaping expectations, and enabling more informed demands for accountability (Meng and Li 2025).

A parallel body of experimental research has emerged that confronts citizens with information about service failures to investigate potential consequences. Studies in this field are rooted in arguments from blame attribution and blame avoidance literature (Hood 2007, 2011) and mainly focus on how citizens assign blame to political actors under different contractual arrangements (e.g. O. James et al. 2016; Lee and Kim 2024; Walker et al. 2025). More recently, a few studies have broadened the scope by exploring

how citizens attribute blame comparatively across political and administrative actors involved in service delivery (e.g. Mohr et al. 2024; J. S. Piatak, Mohr, and Leland 2017).

Despite the valuable insights they provide, these studies often underemphasize the critical initial step of responsibility attribution itself. Responsibility attribution refers to the process by which citizens identify the actors they perceive as responsible for outcomes and is considered as a central prerequisite for assigning credit and blame (Nielsen and Moynihan 2017a; Rudolph 2006) and, consequently, for forming judgements about rewards and sanctions (Arceneaux 2006, 735; Malhotra and Kuo 2008, 121; Rudolph 2003). This distinction is theoretically important because it separates the cognitive process of identifying responsibility from the normative judgement of assigning blame or credit.

Our study addresses this crucial gap in public administration and public management literature by explicitly examining how citizens attribute responsibility to different actors – political principals (mayors) and administrative agents (service units) – and how these attributions translate into sanction and reward judgements. This two-phase process draws on earlier, widely recognized psychological research (Schlenker et al. 1994), which argues for a differentiation of responsibility attribution (linking actors, prescriptions, and outcomes) and consequential judgements like rewards or sanctions, which incorporate additional considerations about outcome significance.

Using a balanced experimental design with within- and between-subject comparisons across scenarios of improving versus declining citizen satisfaction with street cleanliness, the study explicitly addresses the following research questions:

(1) To what extent do citizens attribute responsibility for service outcomes to mayors and service units when services improve versus when they decline?
(2) How do these attributions translate into judgements about rewards or sanctions directed at these actors?
(3) Are there differences in the strength of the relationship between responsibility attribution and these consequential judgements, potentially revealing asymmetries in this two-step process?

By focusing on how citizens attribute responsibility and form judgements about rewards or sanctions, our study explores how citizens differentiate between political principals (mayors) and administrative actors (service units) in their assessments across performance scenarios, providing insights into the nuanced ways in which citizens perceive accountability mechanisms. Citizens face inherent ambiguity in attributing responsibility when

performance indicators – such as citizen satisfaction with street cleanliness – reflect outcomes jointly influenced by political leaders and administrative units, without clearly signalling their distinct contributions. Rather than assuming clearly delineated responsibilities, our study investigates how citizens make sense of and interpret this ambiguity.

The study findings contribute to public management research in several distinct ways. First, while previous studies have predominantly focused on blame attribution in response to service failures, we examine responsibility attribution across positive and negative performance scenarios, empirically testing for attributional asymmetries. Second, we empirically test the sequential cognitive mechanism linking responsibility attribution to subsequent judgements of rewards and sanctions, a theoretically acknowledged, yet insufficiently examined process in public service contexts. Third, our simultaneous comparative analysis of political and administrative actors moves beyond typical single-actor studies, providing nuanced insights into how citizens perceive hierarchical responsibility. Additionally, our approach acknowledges the complexity of attribution processes by controlling for individual-level factors, including socio-demographics, prior experiences, and general attitudes towards public sector performance.

From a practice perspective, our findings offer concrete guidance to public managers and political leaders on clearer communication regarding roles and responsibilities, to align citizen expectations with actual accountability arrangements (Meng and Li 2025; Pérez-Durán 2024).

The article proceeds as follows: the next section outlines the conceptual framework and hypotheses, followed by a detailed description of the survey experiment conducted with 2,277 citizens in Germany and the operationalization of variables. Results are presented subsequently. The discussion section covers the main findings, limitations, and avenues for future research. The article concludes with a summary in the final section.

Conceptual framework and hypotheses

Accountability, responsibility attribution, and performance information

As outlined in the introduction, effective accountability fundamentally depends on citizens' ability to attribute responsibility clearly to relevant actors and subsequently translate these attributions into evaluative judgements about sanctions or rewards, a process influenced by cognitive barriers, informational complexity, and institutional arrangements (Arceneaux 2006; Hobolt and Tilley 2014; Jilke and Baekgaard 2020). To understand how citizens navigate these complexities in this two-step process, we build on

established theoretical models of responsibility attribution from social psychology and political science.

Central to these models is the concept of responsibility attribution, the process by which observers assign responsibility for an event or outcome to specific actors. Foundational work, particularly by Hamilton (1978, 1986), distinguishes between two critical dimensions: causal responsibility, concerning an actor's direct control or influence over outcomes, and functional (or role-based) responsibility, stemming from the obligations, duties, and expectations associated with an actor's position or social role. Schlenker et al. (1994) influential responsibility triangle integrates these dimensions, proposing that responsibility judgements arise from the interplay of three elements: the actor's identity (who?), the relevant prescriptions (role expectations, norms, rules – what should they do?), and the event or outcome itself (what happened?). Responsibility is perceived strongest when the links between these elements are clear: when the actor's connection to the outcome is evident (identity – event link, related to causal responsibility), when their role obligations are well-defined (identity – prescription link, related to functional responsibility), and when clear standards exist for evaluating the outcome relative to the prescriptions (prescription – event link). Citizens, acting as an 'accountability audience' (Schlenker et al. 1994), utilize these perceived linkages to determine if and to what extent an actor is responsible.

Crucially, Schlenker et al. (1994) distinguish this cognitive process of responsibility attribution (establishing the links between actor, prescription, and event) from the subsequent accountability process. They extend the triangle into a *Pyramid Model of Accountability*, where an evaluative audience assesses an actor's conduct regarding the event in light of the established responsibility linkages. This involves an 'evaluative reckoning' – judgements about blame, credit, sanctions, or rewards. Therefore, responsibility attribution logically precedes and critically informs these consequential accountability judgements (Arceneaux 2006; Malhotra and Kuo 2008; Nielsen and Moynihan 2017a; Rudolph 2003). The valence of the outcome (positive or negative performance) becomes particularly salient in shaping these subsequent judgements after responsibility has been initially attributed via the structural linkages.

Attributing responsibility becomes especially complex in hierarchical public service contexts where causal control and role-based obligations are distributed unevenly among different actors (Hamilton 1986). Higher-ranking actors, like elected officials (e.g. mayors) often bear stronger functional responsibility due to their oversight roles and obligations to prevent negative outcomes, even if their direct causal involvement is limited or ambiguous (Hamilton 1986; see also Malle, Guglielmo, and Monroe 2014, particularly focusing on blame). While studies in political science typically focus on attributing responsibility for broadly defined political, economic,

social, and crisis outcomes – such as immigration, healthcare, economic conditions, or disaster preparedness (e.g. hurricanes) – across different government levels (Arceneaux 2006; Hobolt and Tilley 2014; Malhotra and Kuo 2008; Rudolph 2003) research in public administration shifts attribution to more tangible public service delivery contexts. These studies mainly focus on blame attribution or blame shifts in the context of service failures (O. James et al. 2016; Marvel and Girth 2016; Sievert et al. 2020; Walker et al. 2025). Using vignette experiments, the majority of these studies manipulate informational cues – such as structural arrangements or budget shortfalls – to evaluate their influence on citizens' blame attributions, primarily targeting politicians or government more generally (O. James et al. 2016; Marvel and Girth 2016; Walker et al. 2025).

Administrative actors (e.g. service units) who perform day-to-day tasks, however, are often perceived as having greater causal responsibility for specific operational outcomes (Jilke and Baekgaard 2020). As Jilke and Baekgaard (2020, 132) suggest, elected officials may be seen as ' . . . functionally responsible for the actions and outcomes of service delivering organizations . . . ', guiding strategic direction (resource allocation, standards), while the service units handle the direct implementation. While some recent studies have begun to compare blame attributions across political and administrative actors (Mohr et al. 2024; J. S. Piatak, Mohr, and Leland 2017; Leland, Mohr, and Piatak 2021), the question of how exactly citizens differentiate responsibility attributions (beyond just blame) between these actor groups warrants further investigation.

Our study investigates these dynamics using performance information about a tangible local service – street cleanliness – in scenarios of both increasing and decreasing citizen satisfaction. This approach, focusing on moderate performance changes rather than (acute) service failures which is common in blame-focused research, allows for examining nuances in responsibility attribution which are potentially less confounded by intense negative affect (see Baumeister et al. 2001). We expect that citizens' attributions in this context will reflect their perceptions of the distinct roles played by mayors and service units, informed by assessments of both functional obligations (identity-prescription link) and perceived causal influence (identity-event link).

Finally, while the link between responsibility attribution and subsequent accountability judgements is theoretically established, the specifics of this translation, particularly regarding rewards versus sanctions, remain under-explored empirically. Research on negativity bias suggests negative information and outcomes often elicit stronger cognitive processing and emotional reactions than equivalent positive ones (Baumeister et al. 2001; Rozin and Royzman 2001). This implies potential asymmetries in accountability processes: negative

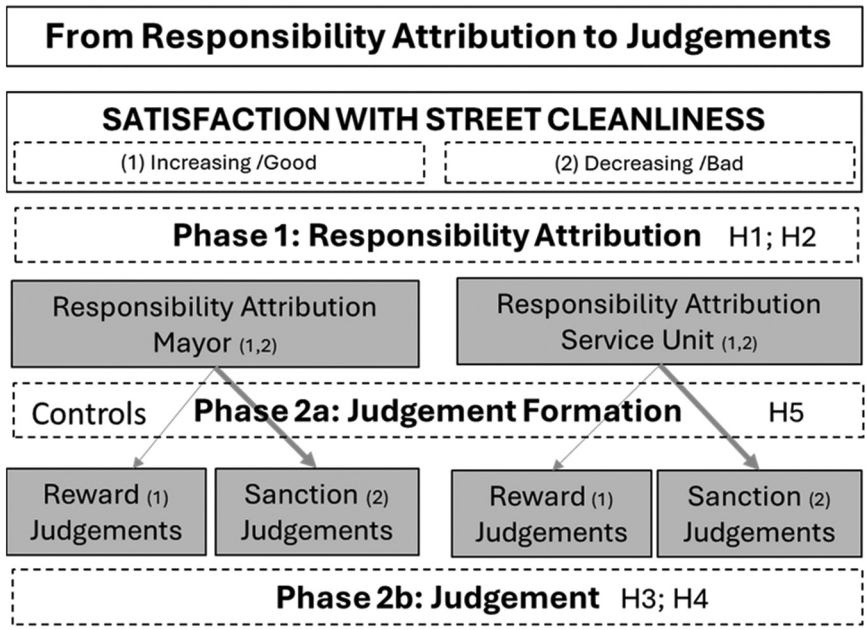

Figure 1. Conceptual framework.

performance may lead to a stronger link between responsibility attribution and judgements (particularly sanctions) compared to the link between responsibility attribution and judgements following positive performance (rewards). Such asymmetries could explain findings where negative performance prompted stronger citizen reactions (Boyne et al. 2009; O. James and Moseley 2014). Examining the strength and symmetry of the relationship between attribution and judgement formation across different performance scenarios is therefore a key goal of the present study. Furthermore, while we focus on the core attribution-judgement link and potential asymmetries driven by outcome valence, we acknowledge that citizens' final judgements are also shaped by established cognitive predispositions. Therefore, our analysis explicitly controls for factors like prior service experiences, attitudes towards public sector efficiency, and political orientation, recognizing their documented influence on evaluative judgements Baekgaard and Serritzlew (2016); Van den Bekerom, Van der Voet, and Christensen (2021); Hjortskov (2019); Hvidman (2019); Marvel (2015).

Figure 1 illustrates the conceptual framework guiding our hypotheses, highlighting how responsibility attributions relate to subsequent reward and sanction judgements.

Hypotheses

Most experimental studies on responsibility attribution in public service contexts focus predominantly on blame following service failures or crises (James and Oliver Sebastian 2017; O. James et al. 2016; Marvel and Girth 2016). This emphasis often underemphasizes the preceding step of responsibility attribution itself and overlooks potential variances in attribution across positive and negative outcomes.

Conceptually, attributing responsibility is distinct from assigning blame or credit and is based on actors' perceived roles, obligations, and causal influence on outcomes (Van der Voet and Rimkutė 2023; Hood 2011; Nielsen and Moynihan 2017a). Schlenker et al. (1994, 632) describe responsibility as ' . . . a psychological adhesive that binds an actor to an event and relevant prescriptions that should govern conduct', explicitly distinguishing responsibility attribution from evaluative judgements regarding consequences. Moreover, scholars caution against conflating responsibility attribution with blame or credit assignment and advise avoiding using credit and blame terminology in questions of responsibility attribution (Rudolph 2003; Sulitzeanu-Kenan 2006, 638). This reinforces the notion that attribution should be analytically and empirically separated from evaluative judgement. While empirical evidence suggests attribution may shift under certain negative conditions (Nielsen and Moynihan 2017a), we follow Schlenker et al. (1994) stricter theoretical assumption that outcome valence itself does not directly alter attributions but rather influences subsequent reward or sanction judgements. We thus explicitly test the assumption of attributional stability across performance scenarios of improving and declining outcomes:

H1. *The levels of responsibility attributed to the mayor (H1a) and the service unit (H1b) will remain constant across the different performance scenarios.*

The distinction between functional (role-based) and causal responsibilities suggests a primary basis for how political principals (mayors) and administrative actors (service units) are judged by citizens (Jilke and Baekgaard 2020). However, Hamilton (1978, 1986) broader roles-and-deeds framework suggests these attributions involve more nuanced judgements. Citizens do not evaluate actors solely on one dimension: while mayors hold primarily functional responsibilities due to their position, they also indirectly shape service outcomes through strategic actions ('deeds') like budget allocations or policy setting. Conversely, service units, primarily perceived as causally responsible due to their operational involvement, also bear important role-based expectations regarding reliable performance and adherence to standards.

More generally, Nielsen and Moynihan (2017a, 2017b), examining how politicians attribute responsibility to bureaucrats based on performance information, suggest a shift towards emphasizing causal responsibility across actor groups. This reflects a broader managerial understanding of responsibility (Olsen 2015), underpinning the provision of measurable performance information on public services. Such information is intended – at least ideally – to facilitate citizens' evaluations (Barrows et al. 2016; Lewis 2019; Mizrahi and Minchuk 2020; Porumbescu, Piotrowski, and Mabillard 2021) and allow more nuanced attributions based on actors' perceived controllability or influence on service outcomes (Nielsen and Moynihan 2017b).

Studies that take a comparative perspective to explore attribution across different actors in public service delivery, are less common but increasing. Recent research has started to address this gap by comparing blame attribution in case of service failures in both in-house and contracted service scenarios (Leland, Mohr, and Piatak 2021; Mohr et al. 2024) showing that attribution varies widely across actors and that contracting out shifted blame attributions.

Despite this growing interest, studies investigating responsibility attribution towards both political principals (e.g. mayors) and their agents (e.g. service units) remain limited. One notable study that investigated how citizens attribute blame for adverse service outcomes across different actor groups involved in public service delivery found that service providers, including city departments and service contractors, were more frequently blamed for negative service outcomes than 'the city' itself (J. S. Piatak, Mohr, and Leland 2017, 984). Furthermore, a study on a particular type of performance evaluation (i.e. public inquiries) found that respondents perceived the top political actor (the minister) as less responsible than the ministerial department, with the agency being judged as most responsible (Sulitzeanu-Kenan 2006).

These findings underscore the complexity of responsibility attribution and suggest that when citizens are made aware of the different actors involved in public service delivery, they systematically differentiate responsibility attributions based on actors' roles and perceived causal contributions. Building on this theoretical and empirical understanding, we hypothesize that citizens will differentiate their responsibility attribution clearly between mayors and service units regarding the specific outcome of citizen satisfaction with street cleanliness. Specifically, service units, given their direct operational responsibility and the daily visibility of their performance, are expected to receive higher responsibility attributions compared to mayors, irrespective of performance valence:

H2. *Citizens attribute a higher degree of responsibility for service outcomes to the service unit than to the mayor in the good (H2a), as well as the bad performance scenario (H2b)*

This study focuses not only on citizens' attribution of responsibility for service outcomes but also on their subsequent judgements. While these judgements may not be directly equated with concrete actions such as raising voice, leaving a service or voting (James and Oliver Sebastian 2017), they nonetheless represent a crucial step towards such actions.

Central to our analytical approach is recognizing a temporally sequenced, two-step cognitive process that citizens employ when evaluating public service performance. First, citizens determine who is responsible (Nielsen and Moynihan 2017a; Van der Voet and Rimkuté 2023) and to what extent. Following this step, citizens move towards considering the appropriate consequences for those identified as responsible, the latter being either rewards or sanctions. This sequential logic underpins the behavioural responses of citizens within democratic systems, ensuring that elected officials and their agents remain responsive to public needs (Bovens, Goodin, and Schillemans 2014; Schillemans 2011).

According to Schlenker et al. (1994), responsibility serves as a 'psychological highway' that connects an actor to subsequent judgements about rewards and sanctions. Once an actor is deemed responsible for an outcome, this attribution legitimizes the subsequent application of consequences. Following this logic, and building on our second hypothesis that citizens attribute higher responsibility to service units than to mayors, we expect that sanction and reward judgements will follow similar patterns:

H3. *Citizens show significantly higher sanction (H3a) and reward judgements (H3b) for the service unit than for the mayor.*

Moreover, our study design allows us to include the widely tested and well-documented negativity bias in public administration literature. This phenomenon suggests that negative outcomes are often sanctioned more severely than positive outcomes are rewarded. The latter has been supported by several (experimental) studies examining the impact of both negative and positive performance outcomes on citizens' reactions, which found that negative performance led to significant consequences for politicians and public service providers such as negative assessments, unfavourable perceptions, and loss of funding. In contrast, positive performance is not rewarded to a similar extent or in a comparable manner (Boyne et al. 2009; Deslatte 2020; Holbein 2016; O. James and John 2007; O. James and Moseley 2014).

Given this, we additionally propose that:

H4. *Citizens show significantly higher judgements about sanctions than rewards for both the service unit (H4a) and for the mayor (H4b).*

Next, we examine the relationship between responsibility attribution and reward/sanction judgements, aiming to explore potential differences in the strength of these relationships.

Based on our conceptualization, responsibility attribution is expected to be significantly related to both reward and sanction judgements for both actor groups. However, we propose that this relationship is stronger for the latter. This hypothesis is based on prior research showing that responsibility attribution may also implicitly carry elements of culpability or blame (Alicke 2000), which may even be more pronounced in negative performance contexts (Hood 2011; Weaver 1986). This again aligns with the negativity bias in human cognition. The cognitive and emotional intensity of processing negative events (Baumeister et al. 2001; Ito et al. 1998; Rozin and Royzman 2001) might strengthen the relationship between responsibility attribution and sanction judgements. This intensity may, however, be less pronounced in forming reward judgements which are more based on acknowledgement and appreciation of positive outcomes. Therefore, we propose that:

H5. *Responsibility attribution shows a stronger association with judgements about sanctions than judgements about rewards for both groups, i.e. the service unit (H5a) and the mayor (H5b).*

Finally, beyond testing these specific hypotheses, our study also aims to explore potential interaction effects. We are interested in how the attribution of responsibility to one actor may influence judgements directed towards that same actor or potentially the other actor, particularly whether the strength of the attribution-judgement link for one actor (e.g. the mayor) is conditional upon the level of responsibility attributed to the other (e.g. the service unit). By investigating such potential interdependencies, we aim to deepen our understanding of how citizens form accountability judgements in contexts involving multiple, jointly responsible actors.

Methodology

To test the hypotheses, we conducted an online survey experiment among citizens living in Germany. Our study focused on street cleanliness in a hypothetical city (van Ryzin and Gregg 2013). Street cleanliness is an essential function of local governments in many countries (van Ryzin et al. 2008) and has been described as 'a basic, observable condition that is important in the daily lives of most citizens' (van Ryzin, Gregg, and Lavena 2013, 89). Accordingly, several experimental

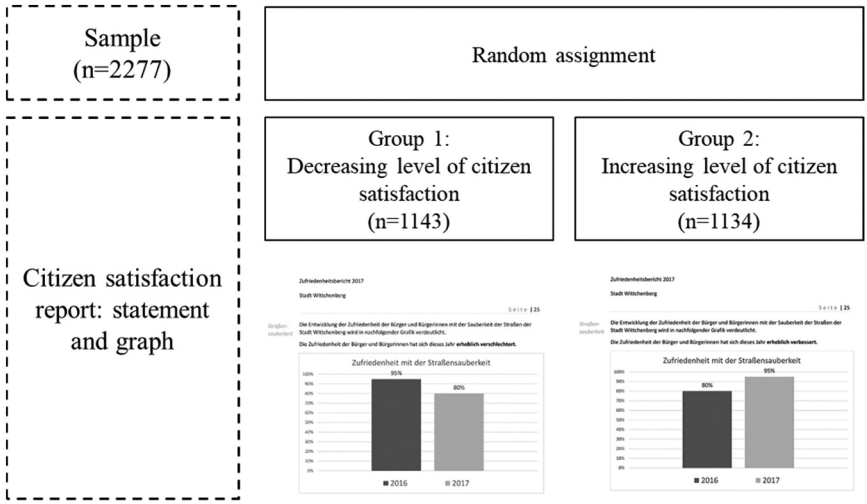

Figure 2. Research design.

studies have used local street cleanliness and maintenance as the context for their vignettes (Filtenborg, Gaardboe, and Sigsgaard-Rasmussen 2017; Grimmelikhuijsen and Porumbescu 2017; O. James et al. 2016; van Ryzin and Gregg 2013; van Ryzin, Gregg, and Lavena 2013; Walker et al. 2025). We follow this approach as, compared to more complex or specialized services such as healthcare or library services, street cleanliness provides straightforward and directly interpretable performance outcomes, reducing cognitive complexity for respondents. Moreover, its frequent use in prior studies enables us to embed and discuss our findings clearly within existing literature. We situated our vignette within a hypothetical, moderately sized municipality (approximately 20,000 inhabitants), aiming to represent a realistic and relatable administrative context that is neither distinctly rural nor largely urban. Moreover, to further enhance the robustness of our findings, we explicitly controlled for respondents' actual hometown population size in our analyses.

In our study, we provided citizens with excerpts from a published annual performance report showing either an increase or decrease in satisfaction with street cleanliness (see Figure 2). We included historical reference points, as well as performance information for the most recent year, based on the notion that 'citizens are interested in what direction of change in performance an organisation is experiencing – for better or for worse' (Olsen 2017, 565).

Data collection

This study uses a nationally representative German sample ($N = 2,277$) recruited through Qualtrics (www.qualtrics.de). Data collection occurred between May and July 2018. Although the data were collected in 2018, recent literature consistently confirms the continued relevance of understanding the mechanisms underlying responsibility attribution (e.g. J. Piatak et al. 2024; Van; der Voet, Joris, and Rimkutė 2023; Walker et al. 2025) and subsequent consequences. The sample is representative of the German population in terms of gender and age. The sample comprised 49.0% male and 51.0% female respondents. The age distribution is as follows: 14.3% of the respondents were younger than 30, i.e. between 18 and 29 old; 18% were between 30 and 39; 18.2% were between 40 and 49; 17.9% were between 50 and 59 years old; and most participants (32.9%) were over 60.

Randomization procedure & operationalization

Participants were randomly assigned to one of two treatment groups (Figure 2) and were presented with an excerpt of a performance report containing a statement and a graph about satisfaction with street cleanliness, showing either a decrease (Scenario 1: decreasing performance) or an increase (Scenario 2: increasing performance) in satisfaction.

In the first, the bad performance scenario, we presented citizens with a graph showing a decrease in satisfaction levels with street cleanliness from 95% (2016) to 80% (2017), together with a textual description of the development. Conversely, in the good performance scenario, citizens were shown a graph that showed an increase in satisfaction from 80% (2016) to 95% (2017) and a corresponding textual description. In both scenarios, the textual description was neutral, short, and understandable, thus not taking a significant amount of time or effort for non-experts to understand (Filtenborg et al. 2017).[1]

Following the presentation, respondents were asked about their attribution of responsibility to mayors and service units for service outcomes. For the responsibility attribution, we used a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree' to assess to what extent respondents considered the mayor (service unit) as ' ... responsible for the increasing (decreasing) satisfaction with street cleanliness'. Additionally, depending on the performance scenario, respondents were asked to indicate the extent to which they believed mayors and service units should be rewarded or sanctioned for the presented performance outcomes. Items such as 'The mayor/service unit should be held to account[2] for decreasing performance' and 'The mayor/service unit should be rewarded for increasing performance' capture these judgements. By rating both actors simultaneously, we also capture the

'comparability' aspect, allowing respondents to weigh the responsibilities of the two actors in a relative manner (Arceneaux 2003; Iyengar 1989; Rudolph 2003, 2016; Sulitzeanu-Kenan 2006).

To test Hypothesis 5, i.e. the relationship between attribution of responsibility and sanction/reward judgements, and to explore cross-actor attribution effects, regression analyses were conducted. The analysis controlled for several potential confounding variables, including socio-demographic factors (age, gender, and education), respondents' prior experiences, and attitudes towards the public sector's efficiency. Prior service experiences were operationalized through respondents' satisfaction with street cleanliness in their hometown, measured on a 7-point Likert scale. Previous literature underscores the necessity of controlling for prior experiences, as they shape respondents' expectations, establishing cognitive benchmarks against which current public service performance is evaluated (Hjortskov 2019). Similarly, attitudes towards public sector efficiency – also assessed on a 7-point Likert scale – were controlled for, given their documented influence on judgements about public service outcomes (Baekgaard and Serritzlew 2016; Hvidman 2019; Marvel 2015; Van den Bekerom, Van der Voet, and Christensen 2021). Political orientation was assessed through respondents' self-placement on a 7-point Likert scale ranging from very left (1) to very right (7), recognizing that political ideology may influence attitudes towards public service performance and related attributional judgements. Additionally, to account for contextual differences, we included the size of respondents' local governments as a control variable. This was operationalized using six categories based on population size: fewer than 5,000 inhabitants; 5,000–20,000; 20001–50,000; 50001–100,000; 100,001–-500,000; and 500,001 or more. Controlling for these variables helps isolate the hypothesized effects by reducing potential confounding stemming from respondents' ideological predispositions and local government contexts.

Results

Based on the conceptual model and corresponding hypotheses (H1-H4), we first examine how performance scenarios influence responsibility attribution and judgements about rewards and sanctions for both mayors and service units. The analysis was conducted using SPSS 28. Independent-samples t-tests were applied to compare attribution and judgement differences between the two performance scenarios (good vs. bad), with Welch's t-test applied when the assumption of homogeneity of variance was violated. Paired-samples t-tests were used to compare the attribution of responsibility and judgements between mayors and service units within each performance scenario. The figures were produced in Python 3.13 using pandas 2.2.3 and matplotlib 3.10.1

Figure 3. Responsibility attribution – bad versus good scenario.

Attribution of responsibility between performance scenarios

Results regarding hypothesis 1 (H1), which suggests that attribution of responsibility should not be influenced by the performance direction, show that in the case of the service unit, the level of attribution of responsibility remains constant in both scenarios (bad performance scenario: $M = 4.73$, SD = 1.279; good performance scenario: $M = 4.75$, SD = 1.263; $t(2275) = 0.324$, $p = 0.746$, d = 0.014, 95% CI [−0.069,0.096]), thus supporting H1b. However, for mayors, the attribution of responsibility shows a significant increase in the good performance model (mean = 4.33, SD = 1.407) compared to the bad performance scenario (mean = 4.19, SD = 1.340). Welch's t-test revealed a significant difference between the scenarios (t(2267.785) = 2.461, $p = 0.014$, d = 0.103, 95% CI [0.021,0.185]), which does not support H1a. The effect size, however, can be considered as small. Figure 3 displays violin plots with means (dots) and numeric mean labels.

Attribution of responsibility within performance scenarios

Paired-samples t-tests were used to compare the attribution of responsibility between mayors and service units within each performance scenario. In the good performance scenario, citizens attributed significantly more responsibility to the service unit ($M = 4.75$, SD = 1.263) than to the mayor ($M = 4.33$, SD = 1.407). The difference was significant ($t(1133) = -10.768$, $p < .001$, d = −0.320, 95% CI [−0.379, −0.260]), showing a small to medium-sized effect. In the bad performance scenario, the difference was more pronounced. Citizens

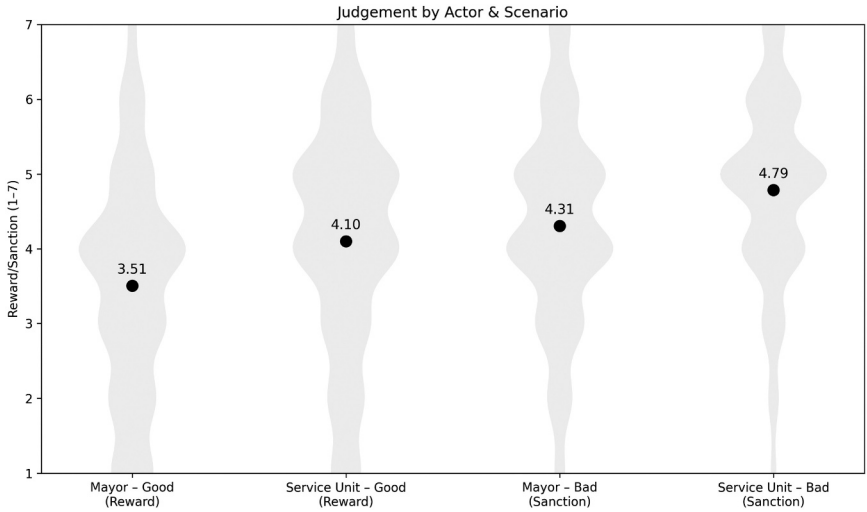

Figure 4. Sanction/Reward judgements – service units versus mayors.

attributed more responsibility to the service unit ($M = 4.73$, SD = 1.279) than to the mayor ($M = 4.19$, SD = 1.340), with a larger mean difference of −0.542. The paired t-test indicated a significant difference ($t(1142) = -13.109$, $p < .001$, d = −0.388, 95% CI [−0.448, −0.328]), showing a medium effect size. This supports H2a and H2b and also reveals that the difference in responsibility attribution is more pronounced when performance declines.

To formally test that contingency, we estimated a 2 (Performance: good vs bad) × 2 (Actor) mixed-effects model with respondent random intercepts. The Performance × Actor interaction was significant, F(1, 2 275) = 5.01, $p = .025$, β = 0.12, 95% CI [0.01, 0.23], confirming that the gap indeed widens under poor performance.

Judgement results within performance scenarios

Similar to the attribution of responsibility, the results show that judgements about sanctions towards mayors ($M = 4.31$, SD = 1.378) are less strong than judgements about sanctions towards the service unit ($M = 4.79$, SD = 1.278) (see Figure 4). A paired-samples t-test indicated a significant difference between the groups (t(1142) = −14.216, $p < .001$, d = −0.420, 95% CI [−0.481, −0.360]). This pattern is also evident in the good performance scenario, where judgements about rewards towards mayors are lower ($M = 3.51$, SD = 1.507) than those towards service departments ($M = 4.10$, SD = 1.520). The paired t-test showed a significant difference between the groups (t(1133) = −16.664, $p < .001$, d = −0.495, 95% CI [−0.556, −0.433]). The effect sizes for these are both within the medium range, providing support for H3a

and H3b. Figure 4 displays violin plots with means (dots) and numeric mean labels.

Judgement results across performance scenarios

With regard to H4a and H4b, results show that judgements about sanctions are significantly higher than judgements about rewards for both actor groups. Welch's t-test indicated that citizens were more inclined to require sanctions for mayors in the bad performance scenario ($M = 4.31$, SD = 1.378) compared to reward in the good performance scenario ($M = 3.51$, SD = 1.507). The difference was significant ($t(2253.579) = -13.233$, $p < .001$, $d = -0.555$, 95% CI [−0.638, −0.471]). For the service unit, similar patterns emerged, with more severe sanctions in the bad performance scenario ($M = 4.79$, SD = 1.278) than reward in the good performance scenario ($M = 4.10$, SD = 1.520). Welch's t-test showed a significant difference ($t(2203.844) = -11.653$, $p < .001$, $d = -0.489$, 95% CI [−0.572, −0.405]). This provides support for H3a and H3b. Moreover, effect sizes for mayor ($d = -0.555$) and service unit ($d = -0.489$) may be considered medium to large.

The interplay between responsibility attribution and sanction or reward

Hierarchical regression analyses were applied to test the effect of responsibility attribution on citizens' judgements about rewards and sanctions (H5). We checked the data for heteroscedasticity and multicollinearity, both of which showed satisfactory results. All models achieve good rates of multicollinearity, and no Variance Inflation Factor (VIF) greater than 1.66[3] was reported.

Table 1 presents the results of the sanction models for both mayors and service units in the decreasing performance scenario. The results reveal that the overall explanatory power is higher for service units than for mayors. Specifically, the adjusted R^2 for the service unit model was 0.54, while for the mayor model, it was 0.44, indicating a stronger model fit for service units. By contrast, the reward models (Table 2) in the good performance scenario showed lower explanatory power, with adjusted R^2 values of 0.28 for the service unit and 0.23 for the mayor.

Socio-demographic factors, prior experiences, and attitudes explain 8% to 10% of the variance in reward judgements but only 1.5% of the variance in sanction judgements. This indicates that these factors have a more pronounced impact on reward judgements. For example, age was found to have a negative effect on reward judgements, indicating that older respondents were less likely to support rewarding mayors or service units for good performance. Similarly, respondents with a university degree were less likely

Table 1. Sanction models.

	Mayor 1 (M1a)					Mayor 2 (M1b)					Service Unit 1 (SU1a)					Service Unit 2 (SU1b)				
	B	SE	β	t	p	B	SE	β	t	p	B	SE	β	t	p	B	SE	β	t	p
(Konstante)	4,03	0,32		12,79	0,000	0,87	0,27		3,28	0,00	4,27	0,29		14,64	0,00	1,17	0,22		5,20	0,000
Prior Experience	0,02	0,03	0,02	0,53	0,597	0,03	0,03	0,03	1,25	0,21	0,00	0,03	0,00	−0,05	0,96	0,00	0,02	0,00	0,22	0,828
Pro PS-Attitude	−0,05	0,03	−0,05	−1,71	0,088	−0,04	0,02	−0,04	−1,56	0,12	−0,05	0,03	−0,06	−1,91	0,06	−0,04	0,02	−0,05	−2,26	0,024
Pol Orientation	0,11	0,04	0,08	2,84	0,005	0,05	0,03	0,04	1,67	0,10	0,11	0,04	0,09	2,89	0,00	0,02	0,03	0,02	0,81	0,421
Education	−0,08	0,03	−0,07	−2,40	0,017	−0,04	0,02	−0,04	−1,79	0,07	−0,01	0,03	−0,01	−0,32	0,75	0,00	0,02	0,00	−0,11	0,911
Gender (Male = 1)	−0,19	0,08	−0,07	−2,32	0,020	−0,12	0,06	−0,04	−1,90	0,06	−0,22	0,08	−0,09	−2,87	0,00	−0,16	0,05	−0,06	−2,98	0,003
Age	0,07	0,03	0,08	2,67	0,008	0,03	0,02	0,04	1,70	0,09	0,08	0,02	0,10	3,27	0,00	0,02	0,02	0,02	1,05	0,295
LG Population	0,06	0,02	0,07	2,38	0,018	0,04	0,02	0,06	2,46	0,01	0,06	0,02	0,08	2,77	0,01	0,03	0,01	0,04	1,78	0,075
RA Mayor						0,60	0,03	0,58	23,49	0,00						0,16	0,02	0,17	7,38	0,000
RA Service Unit						0,15	0,03	0,14	5,59	0,00						0,63	0,02	0,64	27,18	0,000
RA Interaction						0,03	0,01	0,05	2,33	0,02						0,00	0,01	0,00	0,18	0,853
adj R^2					0,021					0,441					0,023					0,534

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 2. Reward models.

	Mayor 2 (M2a)					Mayor 2 (M2b)					Service Unit 2 (SU2a)					Service Unit 2 (SU2b)				
Reward Models	B	SE	β	t	p	B	SE	β	t	p	B	SE	β	t	p	B	SE	β	t	p
(Konstante)	2,78	0,34		8,26	0,000	1,22	0,34		3,63	0,00	3,18	0,34		9,48	0,00	1,44	0,33		4,43	0,000
Pro PS Attitude	0,30	0,04	0,25	8,10	0,000	0,23	0,03	0,19	6,71	0,00	0,31	0,04	0,26	8,43	0,00	0,22	0,03	0,19	6,77	0,000
Prior Experience	0,03	0,03	0,03	0,84	0,402	−0,02	0,03	−0,02	−0,55	0,58	0,07	0,03	0,07	2,35	0,02	0,04	0,03	0,04	1,30	0,195
Pol Orientation	0,08	0,04	0,06	1,92	0,055	0,03	0,04	0,02	0,68	0,50	0,07	0,04	0,05	1,70	0,09	0,02	0,04	0,01	0,56	0,578
Education	−0,13	0,03	−0,11	−3,72	0,000	−0,09	0,03	−0,08	−2,85	0,00	−0,07	0,03	−0,05	−1,92	0,06	−0,03	0,03	−0,03	−1,11	0,265
Gender (Male = 1)	0,12	0,09	0,04	1,28	0,199	0,04	0,08	0,01	0,50	0,62	0,07	0,09	0,02	0,73	0,46	−0,02	0,08	−0,01	−0,19	0,848
Age	−0,10	0,03	−0,11	−3,51	0,000	−0,11	0,03	−0,12	−4,32	0,00	−0,14	0,03	−0,15	−4,97	0,00	−0,15	0,03	−0,16	−6,04	0,000
LG Population	0,01	0,02	0,01	0,29	0,770	0,00	0,02	0,00	−0,11	0,91	−0,03	0,02	−0,04	−1,30	0,19	−0,05	0,02	−0,05	−2,08	0,037
RA Mayor						0,32	0,03	0,30	9,44	0,00						0,17	0,03	0,16	5,35	0,000
RA Service Unit						0,18	0,04	0,15	4,69	0,00						0,37	0,04	0,31	9,95	0,000
RA Interaction						0,00	0,02	0,00	−0,08	0,94						−0,05	0,02	−0,08	−2,93	0,003
adj. R^2					0,086					0,231					0,106					0,287

*$p < .05$; **$p < .01$; ***$p < .001$.

to state that mayors or service units should be rewarded for improved performance. Positive attitudes towards the public sector were significant predictors of reward judgements for both groups. Municipality size emerged as significant in two of four models, suggesting that respondents from larger municipalities sanction mayors more strongly for negative performance outcomes, while being somewhat less inclined to reward service units for positive outcomes.

When responsibility attribution was added to the models, the explanatory power increased significantly across all models. This addition revealed that responsibility attribution has a stronger association with judgements about sanctions than with rewards. Responsibility attribution increased explained variance by $\Delta R^2 = .43–.52$ in sanction models ($f^2 \approx 0.8–1.1$, large) but by $\Delta R^2 = .15–.18$ in reward models ($f^2 \approx 0.20–0.25$, medium), underscoring its dominant role for sanctions and more modest role for rewards. For both the service unit and the mayor, the results supported H5a and H5b, indicating that responsibility attribution plays a more substantial role in shaping sanction judgements than reward judgements.

Interesting patterns emerged when examining the dynamics of responsibility attribution in different performance contexts in more detail. In the declining performance scenario (Table 1), direct responsibility attribution is the dominant driver of sanction judgements. Attribution to the mayor strongly predicts mayor sanctions ($B = 0.60$, $\beta = 0.58$), and attribution to the service unit predicts service-unit sanctions ($B = 0.63$, $\beta = 0.64$; both $p < .001$). Cross-actor paths are positive but roughly one-quarter the size of the direct effects ($\beta \approx 0.15$). The interaction term for mayor sanctions is positive but small ($B = 0.03$, $p = .02$); it indicates a slight amplification – citizens are marginally more punitive towards the mayor when they also hold the service unit highly responsible. However, this interaction effect was non-significant for the service unit sanctions ($B = 0.00$, $t = 0.18$, $p = 0.853$).

In the good performance scenario (Table 2), the focus shifts to how responsibility attribution impacts judgements about rewards for both mayors and service units. The results show that, while direct responsibility attribution remains central to reward judgements, the effect is weaker compared to the sanction model (Table 1). Notably, compared to the sanction model, the direct attribution is only approximately twice as strong as the indirect attribution. This shift in the relative importance of direct versus indirect attribution suggests that in positive scenarios, respondents are more inclined to consider the role of both actors when making judgements about rewards. The interaction effect between mayor and service unit responsibility attribution was only significant in the service unit model, though negative ($B = -0.04$, $t = -2.93$), suggesting that when citizens attributed high responsibility to both actors, they were less likely to support rewarding the service unit.

Discussion

This study provides novel empirical insights into how citizens navigate accountability in public service delivery, particularly clarifying the distinct phases of responsibility attribution and subsequent judgement formation. Moving beyond the frequent focus on blame following service failures within prior public administration research (e.g. O. James et al. 2016; Marvel and Girth 2016; Walker et al. 2025), our findings illuminate the dynamics of responsibility attribution itself across both positive and negative performance scenarios. We demonstrate empirically how citizens systematically differentiate responsibility between political principals (mayors) and administrative agents (service units), generally attributing higher responsibility to the latter (H2), while also revealing that attributions towards mayors may be unexpectedly sensitive to performance valence. Furthermore, by examining the full sequence from attribution to consequence judgements (Figure 1), our results offer clear evidence supporting the theoretically proposed two-step cognitive process (Schlenker et al. 1994) and uncover significant asymmetries in how citizens translate attributions into rewards versus sanctions (H4, H5).

Turning to the patterns of responsibility attribution, our first Hypothesis (H1) tested the theoretical assumption, grounded in Schlenker et al. (1994) distinction between attribution and evaluation, that initial responsibility assessments remain stable regardless of outcome valence. Here, our findings reveal a crucial distinction between actor types. As predicted for service units (H1b), attribution levels remained constant across positive and negative performance scenarios, suggesting that citizens consistently link their responsibility to their direct, operational role (Jilke and Baekgaard 2020). However, attribution levels for mayors were not stable contrary to H1a, citizens attributed significantly less responsibility to mayors when performance declined compared to when it improved, although the effect size for this difference was small. This valence-sensitivity for the political principal could stem from complementary factors. The lower mayoral attribution in the negative scenario may arise when citizens shift focus primarily to the operational level (i.e. the service unit) during service delivery problems, thus relatively diminishing the perceived relevance of the strategic mayor (Jilke and Baekgaard 2020). Conversely, the comparatively higher attribution in the positive scenario could reflect citizens linking success more strongly to the mayor's strategic leadership or functional oversight role (Hamilton 1986), perhaps engaging in political credit attribution. This actor-specific moderation challenges the universality of valence-neutral responsibility attribution, particularly for political figures, and warrants further investigation.

Despite this nuance regarding valence effects for mayors, Hypothesis 2 was supported: citizens consistently attributed higher responsibility to service units than to mayors within both the positive (H2a) and negative (H2b) scenarios. This aligns strongly with theoretical expectations distinguishing the direct operational/causal role of service units from the primarily strategic/functional role of mayors (Hamilton 1986; Jilke and Baekgaard 2020) for tangible services like street cleanliness. It supports existing empirical work (J. S. Piatak, Mohr, and Leland 2017; Sulitzeanu-Kenan 2006) and extends these insights beyond blame to responsibility attribution itself across different performance outcomes. Further nuancing this comparison, our analysis revealed a significant Performance × Actor interaction effect. This interaction demonstrates that the difference in attributed responsibility between the unit and the mayor was more pronounced under bad performance. This widening gap is logically driven by the pattern observed for H1 – namely, mayoral attribution being lower in the negative scenario, while service unit attribution remains constant. Conceptually, this suggests that declining performance may sharpen citizens' focus on the unit with perceived direct causal control (the service unit), amplifying the perceived distinction between operational execution and political oversight compared to situations where services improve.

Moving from attribution to the judgement phase, our findings demonstrate how initial responsibility assessments translate into evaluations of actors, while also confirming strong asymmetric effects based on performance valence. Mirroring the attribution patterns found for H2, citizens directed significantly stronger judgements towards service units compared to mayors, supporting Hypothesis 3. Specifically, units faced higher sanction judgements following declining performance (H3a) and received higher reward judgements following improving performance (H3b). This provides clear empirical support for the theorized sequential process (Figure 1; Schlenker et al. 1994), confirming that responsibility attributions indeed serve as a crucial precursor shaping subsequent judgements about appropriate consequences for specific actors.

Furthermore, the results supported Hypothesis 4, revealing a significant negativity bias in these consequential judgements. For both mayors (H4b) and service units (H4a), judgements about sanctions following poor performance were significantly higher in magnitude than judgements about rewards following comparable good performance. This aligns strongly with prior experimental findings in public administration documenting the disproportionate impact of negative versus positive performance information on citizen reactions (Boyne et al. 2009; Deslatte 2020; O. James and Moseley 2014). It suggests that citizens react more intensely when services decline, perhaps reflecting a 'vigilant' or protective stance towards public service standards, whereas positive performance may be viewed more as meeting

expected levels rather than warranting equally strong positive endorsement (O. James and John 2007). This pronounced asymmetry has clear implications for how performance is communicated and managed.

Beyond the asymmetry in judgement levels (H4), Hypothesis 5 predicted an asymmetry in the strength of the link between citizens' responsibility attributions and their subsequent judgements. Our regression analyses strongly support this hypothesis for both mayors (H5b) and service units (H5a). Responsibility attribution explained substantially more variance in sanction judgements (following declining performance) compared to reward judgements (following improving performance). This indicates a significantly tighter coupling between perceiving responsibility and the ensuing judgement when dealing with negative outcomes versus positive ones. This finding resonates with theories suggesting that responsibility attribution, particularly for negative events, often carries implicit elements of culpability or blame (Alicke 2000; Hood 2011), and aligns with the concept of negativity bias where the heightened cognitive and emotional processing of negative information (Battaglio et al. 2019; Baumeister et al. 2001; Rozin and Royzman 2001) strengthens this specific attribution-to-consequence linkage. Conversely, the weaker association for rewards indicates that responsibility attribution, while still a significant factor, plays a less dominant role in determining the magnitude of positive judgements, with other factors playing a relatively larger role in shaping positive evaluations (see also below).

Further exploration of the regression models revealed additional nuances in judgement formation. Notably, citizens' predispositions – captured by control variables like prior experiences, attitudes towards public sector efficiency, and demographics – played a significantly larger role in explaining variance in reward judgements than in sanction judgements. While sanctions appeared primarily driven by responsibility attribution for the specific negative outcome, rewards were more susceptible to influence from individuals' baseline attitudes and experiences. This pattern might suggest citizens view sanctioning as a more direct, almost obligatory, response to attributed responsibility for failure, whereas deciding on rewards is perhaps perceived as more discretionary and thus more open to influence from general predispositions (e.g. Baekgaard and Serritzlew 2016; Hjortskov 2019; Marvel 2015).

Our exploratory analysis of how responsibility attributions for both actors jointly influence judgements also highlights differing dynamics for sanctions and rewards. For sanctions (following declining performance), direct responsibility attribution (i.e. attribution to the actor being judged) was the dominant driver; its influence was substantially greater than that of indirect responsibility (attribution to the other actor), being about four times stronger in both the mayor and service unit models. This indicates a strong public tendency to place accountability for failure primarily with the actor deemed

directly responsible. Additionally, a positive interaction effect for mayors suggested that holding the service unit highly responsible slightly amplified sanctions against the mayor, perhaps reflecting a 'system failure' perception.

For rewards (following improving performance), the dynamic appeared more complex. While direct responsibility attribution remained key, its effect was notably weaker compared to its role for sanctions, and its influence was only about twice as strong as that of indirect responsibility attribution. This stronger relative role for indirect attribution suggests a greater tendency for citizens to consider both actors when assigning rewards for success. Furthermore, a significant negative interaction effect for service units implied that when high responsibility was attributed to both actors simultaneously, judgements about rewards for the service unit were slightly dampened, possibly indicating a greater inclination to ultimately credit the political principal when success is widespread. These exploratory patterns suggest citizens do not evaluate actors in complete isolation and differ subtly in how they integrate multiple responsibility perceptions when forming reward versus sanction judgements, warranting further specific investigation. Conceptually, citizens acting as accountability audiences might navigate this differentiation and interdependence by implicitly forming separate yet interconnected 'responsibility triangles' (Schlenker et al. 1994) for each actor, linking their distinct identities and role expectations to the common outcome.

In sum, our results reveal a complex interplay between responsibility attribution and citizens' judgements about consequences in local service delivery. Citizens' tendency to attribute more responsibility and stronger consequential judgements to service units aligns more closely with the concept of causal responsibility, as these units directly influence day-to-day service delivery and outcomes. However, this attribution pattern may underestimate the significant influence that mayors exert through strategic decisions, resource allocation, and policy setting. Thus, public officials might struggle to communicate their role effectively, and service units may bear disproportionate praise or criticism that does not reflect their actual level of influence. The interaction effects further complicate this picture. In the good performance scenario, when citizens attribute high responsibility to both actors, their judgements about rewards for service units decrease. Conversely, in the bad performance scenario, high responsibility attribution to both actors led to increased judgements about sanctions for mayors.

Beyond the theoretical contributions, our findings offer practical insights for public administration. The tendency of citizens to attribute greater responsibility for tangible outcomes to service units underscores their direct accountability; managers of these units must therefore proactively manage operational performance and citizen expectations. Conversely, political leaders like mayors face a distinct communication

challenge in demonstrating how their strategic role impacts services, particularly given that citizen attribution towards them appears sensitive to whether performance improves or declines. Furthermore, the pronounced negativity bias found in both the magnitude of judgements and the strength of the attribution-judgement link highlights the critical importance for all public officials to carefully manage communications and responses surrounding service declines, as negative information resonates disproportionately strongly. Finally, the greater influence of citizen predispositions on reward judgements suggests that broader efforts to build public trust and positive prior experiences may be particularly valuable for enhancing positive evaluations when service improvements occur.

However, it is important to note that these findings reflect public perceptions and judgements. Further research is needed to understand how they might influence governance structures or practices and whether they create pressure for changes in how responsibilities are allocated or communicated in performance reports.

Finally, several limitations which translate to future research avenues must be acknowledged. First, while the vignettes were based on everyday scenarios to enhance relatability, the approach comes with the inherent constraints of experimental designs, an aspect that warrants cautious interpretation of the results. Second, the study is situated in Germany, where the provision of services at the local level carries considerable weight and where mayors are directly elected, highly visible figures. This contextual specificity implies that the findings may have different nuances in other national settings (James and Oliver Sebastian 2017; Walker et al. 2025) and highlights the need for similar studies in different geographical and administrative contexts to confirm the generalizability of the observed patterns. Third, as our study focused on street cleanliness, a tangible and widely experienced public service, we acknowledge that patterns of responsibility attribution may vary across different – less visible, or more complex – service domains. Future research should thus test the generalizability of our findings across a diverse range of public services.

Furthermore, we acknowledge that our experimental design intentionally isolated the impact of performance information itself, thereby excluding broader factors known to influence citizen perceptions. Real-world accountability judgements are undoubtedly shaped by elements such as funding constraints (J. S. Piatak, Mohr, and Leland 2017); external crisis (Wei, Petrovsky, and Ni 2024), or concurrent media framing of service issues (Sievert et al. 2020). While our focused approach allowed for clearer identification of attribution patterns based solely on performance valence and actor type, future research should aim to integrate other factors to develop

a more comprehensive and ecologically valid understanding of responsibility attribution processes.

Methodologically, the study incorporates both within-scenario and between-scenario comparisons to accurately capture the dynamics of responsibility attribution. While this approach is in line with our research objectives, there is room for further exploration through more nuanced study designs that clearly separate responsibility attributions from judgements about rewards and sanctions or other evaluative consequences, by implementing it as sequential approach and comparing it with non-sequential approaches across different service delivery contexts.

The use of control variables such as socio-demographic factors, prior experiences, and attitudes towards public sector efficiency strengthens the ability to isolate the effects of responsibility attribution on judgements about rewards and sanctions. However, there might also be other factors at play which needs to be considered in future studies.

Conclusion

By empirically investigating the distinct phases of responsibility attribution and subsequent judgement formation for both political and administrative actors across varying performance contexts, this study significantly advances our understanding of citizen evaluations in public service delivery. Moving beyond prior work that often focused on blame for failures, we demonstrated how citizens systematically differentiate responsibility attribution – consistently assigning more to operational units, yet showing unique valence-sensitivity for mayors. Furthermore, our findings provide strong empirical support for the theoretically proposed two-step model (Schlenker et al. 1994), confirming that attributions precede and shape judgements, but they revealed a pronounced negativity bias: sanctions following poor performance are not only stronger but also more tightly coupled with responsibility attribution than are rewards following good performance.

These results underscore the nuanced cognitive and affective processes underlying citizen evaluations in shared responsibility contexts. They highlight how citizens differentiate between actors, yet apply asymmetric evaluative standards based on performance valence. Our results confirm the importance of concepts like negativity bias within responsibility frameworks. Moreover, our findings revealed important nuances, including different responses to performance valence depending on the actor type and potentially interdependent judgements when evaluating multiple actors. These complexities suggest fruitful avenues for future research, particularly integrating the external contextual factors and examining the diverse service types noted in our limitations. Ultimately, understanding these complex

attribution and judgement dynamics is crucial for improving how public service performance is communicated and for fostering more effective and realistic accountability practices.

Notes

1. This experiment was part of a broader research project that also examined perceived information credibility across five sources in both increasing and decreasing performance scenarios. For the current study, these subgroups were pooled within each performance scenario. A Kruskal-Wallis H test confirmed no significant differences ($p > 0.05$) among subgroups for all dependent variables, validating the pooling approach. Descriptive statistics and test results are provided in the supplementary material (S1, S2 and S3).
2. To hold someone to account (zur Rechenschaft ziehen) has a clearly negative connotation in German. It means to bring someone to account, to punish someone or to sanction someone.
3. To address potential multicollinearity issues, especially in the context of our interaction analysis, we mean-centred the predictor variables. This process reduces the correlation between the main effects and the interaction term, ensuring more reliable and interpretable coefficients in the regression model.

Acknowledgments

We confirm that our AI use complies with Taylor & Francis's policy on generative-AI tools. Generative-AI tools—Google Gemini 2.5 Pro and OpenAI GPT models (GPT-4, GPT-4o, o3)—were consulted iteratively to refine argument structure and improve language clarity. All AI-generated suggestions were reviewed, edited, and approved by the authors, who assume full responsibility for the manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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