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Article — Published Version

Emotional Responses to Bureaucratic Red Tape

Public Administration Review

Provided in Cooperation with:

John Wiley & Sons

Suggested Citation: Hattke, Fabian; Hensel, David; Kalucza, Janne (2019) : Emotional Responses to Bureaucratic Red Tape, Public Administration Review, ISSN 1540-6210, Wiley Subscription Services, Inc., Hoboken, USA, Vol. 80, Iss. 1, pp. 53-63,
<https://doi.org/10.1111/puar.13116>

This Version is available at:

<https://hdl.handle.net/10419/230075>

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Emotional Responses to Bureaucratic Red Tape Symposium Article

Abstract: *Although red tape has a long history in public administration research, the emotional consequences of bureaucratic procedures for citizens have received little attention in the literature. Within the framework of behavioral public administration, this article investigates how varying conditions of administrative delay, administrative burden, and rule dysfunctionality in citizen-state interactions spark discrete emotional reactions. Physiological measurements of emotions (e.g., facial coding, electrodermal activity, heart rate) from 136 participants in a laboratory study show that bureaucratic red tape evokes significant negative emotional responses, especially confusion, frustration, and anger. Experimental evidence also indicates that delay is less stirring than burden, while rule functionality has little placatory effect, regardless of the favorability of outcomes. These results support the conceptualization of red tape as an affective rather than a cognitive phenomenon. They also suggest that negative emotions of citizens are linked to the modus operandi of public administrations.*

Evidence for Practice

- Bureaucratic red tape evokes significant negative emotional responses, especially confusion, frustration, and anger.
- Individuals experience similar levels of negative emotions, regardless of whether they perceive a bureaucratic procedure to be meaningful or meaningless.
- Negative emotions may cause misperceptions of functional bureaucratic rules as dysfunctional red tape, increasing the likelihood of decision bias.
- Administrative burden elicits more negative emotions than administrative delay; therefore, shifting burden to citizens might have unintended side effects.
- Public servants should counterbalance the negative emotional consequences of bureaucratic organization.

The public sector is commonly associated with burdensome and time-consuming administrative procedures that obstruct the effective delivery of public services (Bozeman, Reed, and Scott 1992; Nisar 2017; Pandey and Kingsley 2000). While the “rule of law” in the constitutional state is an indispensable foundation of democratic societies (Weber 1978), it also creates idiosyncrasies that prescribe seemingly irrational behaviors. The academic debate about dysfunctional government rules and regulations has a long tradition in the political sciences (e.g., Kaufman 1977). Early applications to the public management domain have described government red tape as a “pathological” inability to satisfy citizens’ needs (Bozeman 1993, 273) and stressed “frustration and vexation” as emotional consequences of red tape (Bozeman and Scott 1996, 8).

However, in contrast to the original conceptualizations, most studies have focused on organization-internal red tape (Pandey, Pandey, and

Van Ryzin 2017). Since red tape is a multidimensional concept that depends on subjective perceptions rather than objective characteristics of rules, it is extremely difficult to assess the conditions under which important stakeholders perceive a rule as red tape (e.g., Bozeman 2012; Pandey, Pandey, and Van Ryzin 2017). The research has also not yet investigated the proposed emotional outcomes of red tape. Emotions are an important source of information for how individuals perceive a situation (Schwarz 2012); therefore investigating emotional responses could help explain how red tape perceptions and subsequent attitudes and behaviors develop. Common correlates of emotions—for instance, satisfaction, trust, or deviant behaviors—are important to public management scholarship and practice.

Behavioral public administration scholars have recently begun to study how intuitive thinking biases evaluations of public sector performance and affects subsequent attitudes and behaviors both for citizens

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Public Administration Review, Vol. 80, Iss. 1, pp. 53–63. © 2019 The Authors. *Public Administration Review* published by Wiley Periodicals, Inc. on behalf of The American Society for Public Administration. DOI: 10.1111/puar.13116.

(e.g., Andersen and Hjortskov 2016; Marvel 2016) and politicians (e.g., Baekgaard and Kjaergaard 2016; George et al. 2018). Despite the looming prominence of emotional processes in this body of literature, it lacks empirical evidence on discrete emotions. This is also true for studies on emotional labor by public servants, which may influence the strength of citizens' emotive responses (e.g., Guy, Newman, and Mastracci 2008). As dynamic, multifaceted, and intrapersonal phenomena, emotions have long been considered "a subject unsuitable to rigorous research" (Ashkanasy 2002, 14).

We go beyond purely perceptual operationalizations of red tape and advance a multidimensional framework for bureaucratic red tape in citizen-state interactions that consists of two independent necessary conditions (administrative delay and administrative burden) and one sufficient one (rule dysfunctionality). This means that bureaucratic rules always create a delay or a burden, but not every time-consuming or burdensome procedure is red tape. Whether a rule qualifies as red tape depends on whether it serves a valued purpose (Bozeman 2012). We theorize how these conditions of bureaucratic red tape relate to power and status, the two basic dimensions of micro-interactions, and how changes in power and status during bureaucratic encounters cause emotional responses (Kemper 1991).

We test the hypothesized relationships in a laboratory experiment that details distinct emotions via physiological measurements (i.e., facial expressions, electrodermal activity, heart rate; see Ekman 1992). We gathered the data, including 136 observations, from student participants. Since our study is among the first to investigate citizens' emotional responses to bureaucratic red tape, we chose a design that maximizes internal validity. This comes at the expense of external validity, so we need to draw generic implications cautiously. However, the experimental manipulation of bureaucratic conditions enables us to avoid issues of common source bias and measurement validity (George and Pandey 2017), while the use of physiological measurements allows us to address some of the methodological challenges in the study of emotions (e.g., Ashkanasy, Humphrey, and Huy 2017).

We make three contributions. First, we expand the literature on bureaucratic red tape by detailing how bureaucratic red tape affects citizens both conceptually and empirically. This topic has received inadequate attention compared with its relevance in the broader public administration field (Pandey, Pandey, and Van Ryzin 2017). Second, we open the "black box" of emotions during micro-interactions in the context of a simulated bureaucratic encounter. By using physiological measurements, we specify discrete emotions under varying conditions of bureaucratic red tape at the time the interaction takes place. Thus, we go beyond studies of positive and negative affect based on self-reports after an event has taken place (Ashkanasy, Humphrey, and Huy 2017). Third, the experiment merits further studies at the intersection of behavioral public administration (Battaglio et al. 2019; Grimmelikhuijsen et al. 2017) and organizational neuroscience (Reina, Peterson, and Waldman 2015). It illuminates how cognitive and affective processes interact in subjective assessments of bureaucratic organization, potentially causing misattributions and bias in a variety of public sector interactions. This article prepares the ground for a respective research agenda moving forward.

The remainder of this article is structured as follows: In the next section, we outline the framework of bureaucratic red tape in citizen-state interactions and then draw on arguments from emotion theories to hypothesize relationships between bureaucratic red tape and its emotional consequences. In the following section, we introduce our research design, data, and methods. Then, we present the analyses and results. We conclude by discussing theoretical implications at the intersection of public management scholarship and emotion research.

Theory and Hypotheses

A Framework for Bureaucratic Red Tape in Citizen-State Interactions

Research into bureaucratic red tape has expanded our knowledge on a variety of topics, including organizational effectiveness (e.g., Pandey, Coursey, and Moynihan 2007), public and private sector specifics (e.g., Pandey and Kingsley 2000), managerial alienation (e.g., DeHart-Davis and Pandey 2005), personnel recruitment (e.g., Linos and Riesch 2019), and career intentions (e.g., Hattke, Vogel, and Znanewitz 2018). The few investigations into the consequences of red tape in citizen-state interactions (e.g., Christensen et al. 2019; Moynihan and Herd 2010; Scott and Pandey 2000; Tummers et al. 2016) have demonstrated that it delays the delivery of services (Bozeman, Reed, and Scott 1992) and imposes administrative burdens on citizens (Herd et al. 2013). Still, there is an ongoing debate about what red tape actually is and how best to assess it.

In their review of concepts and measures of red tape, Pandey and Scott (2002, 567) found agreement among scholars that "red tape is concerned with negative effects of rules and procedures." Similarly, a survey among public sector employees found that when asked about their own definitions of red tape, participants most commonly referred to inefficient processes and barriers (Kaufmann, Borry, and DeHart-Davis 2018). According to the most common definitions by Bozeman (1993, 2000), the distinction between necessary bureaucracy and dysfunctional red tape involves a normative judgment about a rule's contribution to a "legitimate" or "valued" purpose. This requires scholars to establish the targeted outcomes of rules and to evaluate their contributions to these goals. Authors have tried to resolve this dilemma by establishing objective measures for red tape. For instance, they have investigated whether administrative delays, as the amount of time required for processing administrative tasks, indicate red tape (e.g., Pandey and Bretschneider 1997; Pandey and Welch 2005). Others have advanced the costs of bureaucratic rules to evaluate the administrative burdens imposed by red tape (e.g., Moynihan, Herd, and Harvey 2014). Although both approaches include important characteristics of red tape, they do not acknowledge whether a rule contributes to a valued purpose. A rule may be costly yet still functional to achieve a legitimate goal.

Rosenfeld's (1984, 603) reply to Kaufman's (1977) seminal book already pointed to this problem, stressing that "individuals who deal with bureaucracies develop their own criteria for red tape. Therefore red tape may be understood best as a problem of individual perception rather than one of identifying objective measures for it." Numerous perceptual measures for red tape have since been introduced (for a review, see Bozeman and Feeney 2011). The appeal of these approaches is that the surveyed individuals establish a rule's dysfunctionality. However, perceptual measures have

shortcomings, especially when applied in cross-sectional surveys together with other perceptual measures (Bozeman and Feeney 2011). Pandey and Marlowe (2015) investigated the susceptibility of perceptual red tape measures to possible distortion and proposed anchoring vignettes to separate systematic bias from the “true” measurement of red tape. Feeney (2012) concluded from her red tape measurement experiment that the term “red tape” itself carries quite strong general negative connotations and should be eliminated from survey items to not negatively skew responses. Further, most studies have built on Bozeman’s (1993) organizational red tape to survey public managers and employees. Red tape in citizen-state interactions have seen little attention. Extending his original work, Bozeman (2012, 253) has called for “more nuanced and multi-layered judgments about rules including assessments of other stakeholders.”

To advance a framework of bureaucratic red tape in citizen-state interactions, we draw on a typology of organizational red tape that conceptualizes administrative delay and administrative burden as necessary but not sufficient conditions for red tape (van Loon et al. 2016). Necessary condition means that a rule qualifies as red tape only if it imposes delays or burdens. The sufficient condition for red tape is the lack of rule functionality; it states that there is no such thing as functional red tape. Instead, time-consuming and burdensome yet functional rules are necessary bureaucracy (van Loon et al. 2016).

The framework follows the distinction between necessary bureaucracy and dysfunctional red tape (figure 1). Delay red tape and burden red tape, or the two combined—strong red tape—lack rule functionality. In contrast, delay bureaucracy, burden bureaucracy, and strong bureaucracy constitute necessary bureaucracy. However, rule dysfunctionality is more complex to evaluate for organization-external stakeholders than for managers or employees (Kaufmann and Feeney 2014; Moynihan and Herd 2010). The point of reference in stakeholder red tape is not a rule’s contribution to a legitimate organizational purpose, as in organizational red tape, but instead whether it is congruent with the individual stakeholder’s values

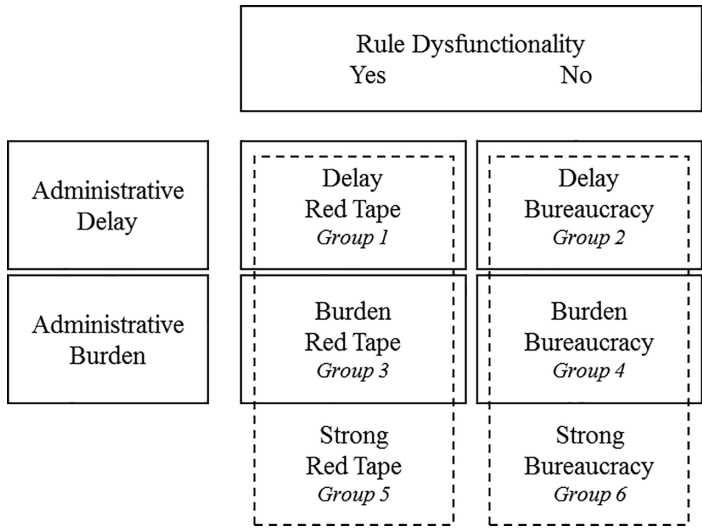


Figure 1 Framework for Bureaucratic Red Tape in Citizen-State Interactions

(Bozeman 2000). Citizen-state interactions are also characterized by multiple information asymmetries between policy makers, public managers, street-level bureaucrats, and citizens (Meyers and Vorsanger 2007). The average citizen is mostly unaware of the larger purposes of policies and the administrative procedures they prescribe (James 2011). One major contributing attribute of effective rules, also termed “green tape,” as identified by DeHart-Davis (2009, 2017), is the understood rule purpose by all stakeholders. Without sufficient knowledge about the functional objectives of a rule, citizens may dismiss it as dysfunctional red tape and may react accordingly, even if they would principally endorse the rule’s objective. Thus, information about a rule’s purpose is a vital precondition for citizens’ abilities to assess its outcome’s favorability and whether they perceive a bureaucratic rule as red tape.

The Relationship between Bureaucratic Red Tape and Emotions

Emotions play an important role in human life. Arising from subconscious biological processes, emotions prompt impulsive behaviors, but also influence deliberate decisions, interpersonal relationships, and collective behavior (Ashkanasy 2003). Affective events theory (AET) directs attention toward particular events as causes of emotionally charged behaviors (Weiss and Cropanzano 1996). AET advances an overarching conceptual “macro-structure” that requires further theoretical specification when applied to particular interactions (Weiss and Beal 2005).

Kemper’s (1978) work on power and status in social interactions provides this conceptual underpinning; accordingly, power and status are the two basic dimensions in every micro-interaction (e.g., Kemper and Collins 1990). Power, the first dimension, compels individuals to do what they are reluctant to do. It refers to compliant behaviors that result from coercion. Status, the second dimension, entails deferent behaviors when individuals accept that a particular conduct is appropriate; thus, it leads to voluntary compliance. Every interaction maintains or changes the distribution of power and status between “the self” and “the other,” which may be a person or an abstract concept (Kemper 2006).

Human emotions are tied to individual perceptions of gains or losses of power and/or status during an interaction (Kemper 1978). Thoits (1989, 325) established that “the emotional outcomes of power and status relationships have specific physiological correlates... which is why both power and status dimensions of relationships and certain emotional experiences are cultural universals.” Every micro-interaction involves both basic dimensions at once, which explains the phenomenon of ‘mixed’ feelings or emotions (Kemper 2006). They result from different combinations of alternations in power and status during an interaction. Although Kemper (1991) outlined various combinations of power-status relationships and their subsequent emotions, he also admitted that, “when multiple or mixed emotions occur, it is not clear how physiological processes accommodate to this state” (Kemper 2006, 111). Since we are especially interested in emotional responses within a particular interaction, we reduce the model’s complexity and formulate our hypotheses concerning the broader categories of positive and negative emotions.

A first simplifying assumption is to conceptualize the distribution of power as a “simple dichotomy” (Kemper 2006, 102). Thus,

an increase in others' power corresponds to a decrease in self-power, and vice versa. The experience of powerlessness is a key feature of red tape (DeHart-Davis and Pandey 2005; van Engen 2017). Pandey and Kingsley (2000, 784) identified powerlessness as a "state of mind likely to influence perceptions of red tape." Powerlessness relates to administrative delay and administrative burden as the two necessary conditions of bureaucratic red tape. If a bureaucratic encounter involves time-consuming and burdensome rules to enforce compliant behavior on the part of citizens, the administration relies on its power to interact with citizens. Kemper (1991) suggests that individuals with low power experience negative emotions, especially anger and fear. Anger, in particular, is a response to a personal loss (Schwarz 2012). Rodell and Judge (2009) found a positive relationship between work-related hindrance stressors, including inefficient procedures, and the intensity of employees' negative emotions. Thus, we assume the following:

Hypothesis 1a: Delay, burden, and the two combined will evoke negative emotional responses.

Hypothesis 1b: Delay and burden combined will evoke stronger negative emotional responses than delay or burden alone.

The dimension of status may facilitate or mitigate these effects. Status differs from power, as both actors may mutually enhance their status simultaneously. If individuals feel appreciation of their values during an interaction, they experience what Kemper and Collins (1990, 34) call "cultural communities" in which actors share "common frames of reference for cognitions and emotions." In the case of mutual status conferral, an interaction facilitates positive emotions (Kemper 1991). In contrast, status decreases in situations in which actors disagree about the meaning of interactions and the behaviors they prescribe (Kemper and Collins 1990). This meaningfulness is yet another key feature of bureaucratic red tape (DeHart-Davis and Pandey 2005; van Engen 2017). It is often the "excessive or meaningless paperwork" (Bozeman 1993, 274) that alienates citizens from government rules and regulations. Since status indicates a shared meaning of an interaction, it corresponds with rule dysfunctionality as a sufficient condition of red tape. Thus, following a meaningless administrative rule decreases citizens' status. Low status leads to a variety of negative emotions, including anxiety, guilt, or shame (Kemper 1991). In turn, citizens may obtain status and may experience positive emotions when they follow meaningful bureaucratic procedures. Adding to our arguments from the first hypotheses, we conclude the following:

Hypothesis 2a: Dysfunctional rules (red tape) will evoke stronger negative emotional responses than functional rules (bureaucracy).

Hypothesis 2b: Functional rules (bureaucracy) will evoke positive emotional responses.

Method and Data

Research Setting

We gathered the data in a laboratory study with student participants from our universities. Since emotions are difficult to evoke in fully disclosed, artificial research designs (Frijda 1988; Gill 2015), we

determined that "effective nondeceptive alternative procedures are not feasible" (APA 2002, 11). Following recommendations in the emotions literature (e.g., Ashkanasy, Humphrey, and Huy 2017; Frijda 1988; Gooty, Gavin, and Ashkanasy 2009), we conducted the experiment as a possibly realistic situation: a payout procedure after a laboratory study. Once participants had completed a 30-minute survey, which included a semantic misattribution procedure on university brands (Hensel 2019) and a vignette study on coproduction (Hattke and Kalucza 2019), we presented an online game in which they could double their expense allowance from €10 to €20. We framed this opportunity as generous support by an unspecified public agency, which we could offer to only some participants. We used a slot machine to evoke the perception of random selection, but everyone won the extra allowance. The zero-loss distribution was not disclosed until after the study. All instructions were presented on the screen of the computer.

Before the study, we informed all individuals that participation was voluntary and that they could withdraw at any time without any negative consequences regarding their allowance. We also told participants that the experiment would include measurements of facial and physiological data and that the results would be anonymized prior to publication. Written informed consent was obtained prior to the study. After the experiment, the examiners handed out the full €20, regardless of the treatment. We also debriefed participants about the study purpose.

Research Design

The experiment used a between-subjects design. Once participants doubled their allowance, they were randomly assigned to one of seven groups. The experimental design simulated "pass-through red tape" (Scott and Pandey 2000). Participants experienced a bureaucratic encounter in which they initiated the bureaucratic transaction (by taking the survey) as individuals outside the organization at which the interaction was directed (i.e., the public agency; see Kahn, Katz, and Gutek 1976). The design followed the framework for bureaucratic red tape outlined in figure 1. We added a control group for participants who did not receive any treatment, just the information that the extra money would be paid in cash right after the experiment (appendix A in the Supporting Information online displays the wording of treatments). Participants in group 1 (*delay red tape*) were given the information that the gained reward would be wired to their bank account after approximately 30 days (administrative delay; see Pandey and Welch 2005). Group 2 (*delay bureaucracy*) had the same 30-day delay treatment, but participants were explicitly informed about the procedure's functionality—that is, the monitoring of payout procedures to prevent misconduct.

Participants in group 3 (*burden red tape*) were asked to complete a two-page form for the agency. Similar to Tummers et al.'s (2016) experiment, the document collected information that was (1) redundant to the demographic control variables already gathered during the initial survey (e.g., age, gender, study level), (2) seemingly unrelated to the document's purpose of allowance approval (e.g., the number of surveys participated so far), and (3) had excessive detail (e.g., inquiring about the quantity of telephone, online, paper-based, face-to-face surveys). The document also included design elements adapted from our universities'

reimbursement forms (e.g., a section to be filled out by the administration with the organization unit, cost center number, and project number). Group 4 (*burden bureaucracy*) received the same document, with a disclaimer at the top stating that publicly funded studies were required to follow certain ethical standards that are monitored by the agency. Potentially redundant demographic information was required owing to data privacy. Thus, the difference between burden red tape and burden bureaucracy was the additional information about the procedure's functionality—that is, the monitoring of payout procedures while protecting personal data.

Group 5 (*strong red tape*) combined the manipulations of groups 1 (delay red tape) and 3 (burden red tape). Participants first completed the form and were then told about the delayed payout. The wording was identical to the foregoing treatments. Participants in group 6 (*strong bureaucracy*) obtained both the treatments from groups 2 (delay bureaucracy) and 4 (burden bureaucracy) with the same information about the procedure's functionality and in the same order as group 5.

Measurements

Automatic facial expression recognition software provides a process-oriented approach to detect emotions during micro-interactions. It analyzes videos of participants' facial expressions to classify their affective states. We performed facial expression recognition using FACET (Emotient, Inc.), a variant of Computer Expression Recognition Toolbox (CERT), a commonly used facial expression recognition system (Littlewort et al. 2011). CERT and FACET use Ekman and Friesen's (1978) Facial Action Coding System (FACS), which objectively describes facial expressions through the combination and composition of numerically designated action units (AUs), which correspond to distinct movements of facial muscles.

The FACET algorithm has three parts: AUs, emotion, and valence. The AU module classifies the video frames into 20 different FACS action units. The emotion module combines the AUs and assigns emotion labels within six basic emotion categories (joy, surprise, anger, fear, disgust, and sadness) and three complex states (confusion, frustration, and contempt; see Ekman 1992). The valence module categorizes emotions into positive, negative, or neutral states. Every category (the three valences, nine emotions, and 20 AUs) has an evidence score for each frame, which is a numerical value corresponding to the likelihood of its presence. The variables of emotions correspond to the means of their evidence score for the treatment period (or nontreatment in the control group; see appendix B in the Supporting Information).

Table 1 Sample Characteristics

		All Groups	Control Group	Delay Red Tape	Delay Bureaucracy	Burden Red Tape	Burden Bureaucracy	Strong Red Tape	Strong Bureaucracy
Total	N	136	19	19	20	19	20	20	19
Age	Mean	23.37	23.16	25.00	22.85	23.42	23.35	23.45	22.37
	SD	3.31	2.73	3.51	2.78	4.39	2.81	3.73	2.79
	Min. value	18.00	20.00	20.00	19.00	18.00	19.00	19.00	19.00
	Max. value	35.00	30.00	32.00	30.00	35.00	31.00	34.00	30.00
Gender	Female (%)	38.97	36.84	36.84	45.00	36.84	40.00	35.00	42.11
	Male (%)	61.03	63.16	63.16	55.00	63.16	60.00	65.00	57.89
Study level	Undergraduate (%)	74.26	84.21	63.16	70.00	78.95	80.00	75.00	68.42
	Postgraduate (%)	25.74	15.79	36.84	30.00	21.05	20.00	25.00	31.58

We acquired real-time facial and physiological data using the iMotions FACET software integrated with a unit to measure electrodermal activity (EDA) and optical heart rate (HR). Face detection runs at 30 frames per second, and the EDA data were collected at 128 Hz by electrode stickers attached to the palm of the nontyping hand. We tracked the HR from sensors attached to the earlobe. A review of more than 130 articles in biological psychology showed that the specificity of the autonomic nervous system is very pronounced, and that the measures we used have high validity to assess emotions (Kreibig 2010; see also Ekman, Friesen, and Hager 2002).

Before the survey, we logged the participants' individual resting heart rates (RHRs). With the help of the RHRs and the HRs recorded during the treatment, we weighted the emotions with a multiplier: $[1 + (HR - RHR) / RHR]$. As a result, emotions had more or less strength according to the arousal level (Shelley and Shelley 2001). The measurement of EDA uses the skin surface's electrical conductivity as another indicator for arousal (Boucsein 2012). Upon activation, the organism reacts with transpiration, which increases the skin's conductivity and decreases its resistance. We used a software algorithm to detect peaks of the EDA data within a predefined response window of five seconds after stimulus onset (Benedek and Kaernbach 2010). Finally, we counted the peaks during each treatment and converted the measure into EDA peaks per minute (see appendix C in the Supporting Information).

As suggested by Kaufmann and Feeney (2014), we evaluated participants' outcome favorability (OF) prior to the experiment. The two items assessed the subjective importance of fraud prevention (OF1) and data protection (OF2) in public services, according to the information in the bureaucracy treatments. We also assessed participants' perception of red tape with a specified version of Borry's (2016) Three-item Red Tape Scale (TIRT; Cronbach's alpha 0.58). Finally, we asked respondents to indicate their trust in the procedure's meaningfulness to test for the effect of information provision in the bureaucracy treatments (single-item TRUS; adapted from Nakamura and Kim 2010). All items were measured on five-point Likert scales (as displayed in appendix D in the Supporting Information).

Sample Characteristics

A team of student assistants recruited 210 participants on the authors' university campuses in early 2018. Besides the specification that participants had to be German citizens and matriculated at the respective university, we imposed no other restriction. Nonetheless, the student sample is more homogenous than the total citizen

population. While this is advantageous for theory testing and for the internal validity of our results, it comes at the expense of their external validity (Greenberg 1987). Since both universities are public universities and all participants were German citizens, we nonetheless expect our results to have some implications for citizen-state interactions (Mintz, Redd, and Vedlitz 2006). We only included students in the experiment who reported high outcome favorability ($OF \geq 3$), since they should evaluate the delays and burdens as functional when provided with the respective information about rule purpose. We also excluded observations where we experienced technical problems (interrupted video data, anomalous baseline emotions, EDA, or HR values). In sum, 136 observations were eligible for data analysis. Table 1 reports the descriptive statistics for age, gender, and study level of the total sample and the seven subgroups. One-way analyses of variance (ANOVAs) showed that participants were randomly assigned to the seven groups concerning their sociodemographics [age: $F(6, 129) = 1.16$; $p = .33$; gender: $F(6, 129) = 0.10$; $p = .99$; study level: $F(6, 129) = 0.54$; $p = .78$]. Thus, we expect no confounding effects owing to group assignments.

Manipulation Check

We first tested whether participants perceived the three conditions of bureaucratic red tape as intended by assessing the procedure's degree of red tape (TIRT) and the participants' trust in the procedure's meaningfulness (TRUS). Figure 2 displays the differences between the groups. One-way ANOVAs indicated that the means between at least two groups differed significantly for both variables [TIRT: $F(6, 129) = 5.26$; $p < .01$; TRUS: $F(6, 129) = 3.43$; $p < .01$]. Post hoc analyses suggested that TIRT values varied as expected: individuals in the red tape groups perceived more red tape than those in the corresponding bureaucracy groups, while both strong treatments showed the highest TIRT levels. However, differences were only significant between the control group and the treatments ($p < .01$). TRUS values varied significantly between the red tape and the bureaucracy treatments (delay: $p < .05$; burden: $p < .01$; strong: $p < .05$). Thus, participants perceived the same procedure as more meaningful when they received information about its purpose. The contradiction between these two findings—

simultaneously judging a rule as red tape *and* as meaningful— indicates that participants understood the rules' objectives in the bureaucracy treatments but still perceived them as dysfunctional red tape, despite knowing the rules' outcomes.

Results

We conducted one-way ANOVAs to assess bureaucratic red tape's effects on emotions. We assumed that there were no interrelationships among the dependent variables of emotions, so we used multiple ANOVAs instead of a multivariate analysis. The independent variable represented the six treatments of bureaucratic red tape plus the control group. First, we used positive and negative emotional valences as dependent variables. Then we analyzed discrete emotions and EDA peaks per minute, examining potential differences between the seven groups. Table 2 presents the ANOVA results for the two emotional valences, the specific emotions and the arousal.

The analysis of bureaucratic red tape's overall effects on emotional valences did not reveal a significant effect on positive emotions, while the predicted effect on negative emotions was indeed significant. The tests further indicated that there was no significant difference in EDA peaks per minute across the seven groups. We

Table 2 One-Way Variance Analysis (ANOVA) Results

Dependent Variable	df1/df2	(Welch's) <i>F</i>	est. ω^2
Positive valence	6/129	0.92**	0.00
Negative valence	6/129	2.82**	0.07
<i>EDA peaks per minute</i>	<i>6/57.04</i>	<i>1.34**</i>	<i>0.01</i>
Anger	6/129	8.48**	0.25
Fear	6/129	1.57**	0.02
Contempt	6/129	1.20**	0.01
Disgust	6/129	2.38**	0.06
<i>Sadness</i>	<i>6/56.95</i>	<i>3.71**</i>	<i>0.11</i>
<i>Confusion</i>	<i>6/56.51</i>	<i>4.23**</i>	<i>0.12</i>
Frustration	6/129	7.22**	0.22

Notes: *Italics* indicate Welch's *F* test due to violation of the homogeneity of variance assumption.
Magnitudes of omega squared are classified as follows: ≤ 0.06 small effect; ≤ 0.14 medium effect; > 0.14 large effect. * $p < .05$; ** $p < .01$.

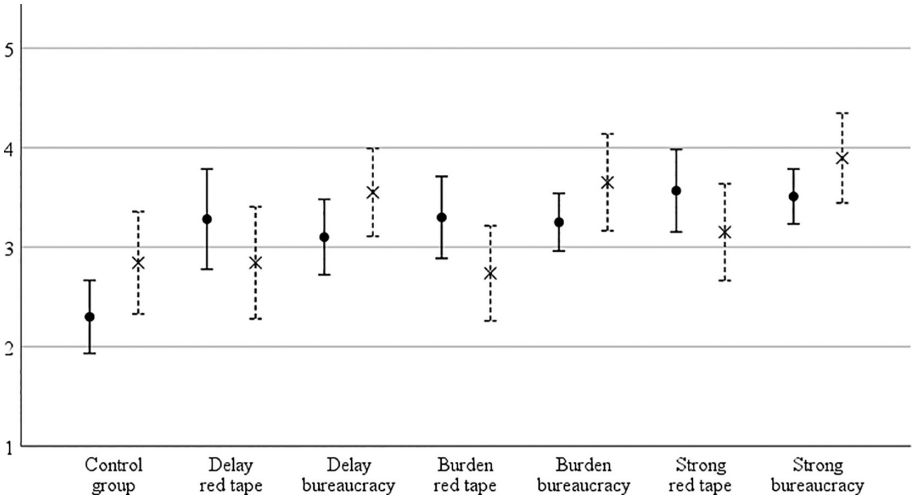


Figure 2 Manipulation Check. Perceived Red Tape (TIRT ●) and Trust in Meaningfulness (TRUS ×) Means and 95% Confident Intervals per Group

conclude that all groups had similar arousal levels in terms of skin conductivity. The results in table 2 indicate that mean values differed significantly between at least two groups for the emotions of anger, disgust, sadness, confusion, and frustration. Fear and contempt were the only negative emotions with no significant differences across all groups.

Next, we conducted post hoc tests with Sidak corrections for multiple comparisons to determine which treatment group differed significantly from the control group for each of the discrete emotions. Table 3 displays the results. Both burden and strong treatments had significantly higher average scores for anger, confusion, and frustration compared with the control group. Delay red tape showed significantly higher frustration and confusion. Delay bureaucracy had a significantly higher average score for confusion. Burden bureaucracy also caused some sadness.

Hypothesis 1a posited that delay, burden, and the two combined would evoke negative emotional responses. The significantly higher mean values for anger, confusion, and frustration caused by the treatments indicate that this is indeed the case, confirming this hypothesis. The comparison of delay, burden, and strong treatments showed that anger had significant higher mean values in both strong treatments, compared with the delay treatments (see table 4), which partially supported hypothesis 1b. Comparisons between the corresponding red tape and bureaucracy treatments showed no substantial differences. There was an increasing frustration concerning delay red tape but, contrary to our expectations, burden red tape caused less frustration, sadness, and anger than burden bureaucracy did. Based on this weak and mixed evidence, we rejected hypothesis 2a. Since none of the treatments caused positive emotional responses, we also had to reject hypothesis 2b.

Discussion

The study provided empirical evidence for the previously unsubstantiated assumptions about the emotional responses to time-consuming and burdensome bureaucratic encounters (Bozeman and Scott 1996). The analysis confirmed that administrative delays and burdens cause negative emotions, especially confusion, frustration, and anger. Administrative delay was less stirring than administrative burden or both combined, which illustrates the psychological costs of administrative burdens (Christensen et al. 2019). None of the treatments significantly affected participants' positive emotions. Surprisingly, the information about rule functionality had little placatory effect on negative emotions, regardless of participants' appreciation of procedural outcomes. Following the framework for bureaucratic red tape, we had expected substantial and unequivocal differences between meaningful and meaningless procedures, but

Table 4 Group Comparisons of Delay and Burden with Strong Treatments

Dependent Variable	Strong vs. Delay Red Tape	Strong vs. Delay Bureaucracy	Strong vs. Burden Red Tape	Strong vs. Burden Bureaucracy
Anger	0.84*	0.76*	0.55	0.29
Fear	−0.29	−0.40	0.04	−0.33
Contempt	0.21	0.31	0.13	0.03
Disgust	0.57	0.65	0.12	−0.07
Sadness	0.27	0.34	−0.15	−0.17
Confusion	0.57	0.37	0.38	0.16
Frustration	0.45	0.63	0.52	0.40

Notes: Means differences displayed. ANOVA post hoc tests with Sidak correction. * $p < .05$.

this was not the case. Thus, the dimension of power was much more influential than status. The manipulation check already foreshadowed this finding. Respondents across treatments perceived higher levels of red tape compared with the control group, but the differences between the treatment groups were insignificant. At the same time, participants' trust in the procedure's meaningfulness indicated the expected significant variations. Respondents perceived a rule as more meaningful when bureaucracy treatments provided information about the rule's purpose. Still, they evaluated bureaucratic rules as dysfunctional red tape. This suggests that individuals see little difference between administrative procedures and red tape.

A possible explanation for this unexpected finding is that the negative emotive reactions distorted the cognitive link between the experienced delays and/or burdens and the procedures' outcomes. Red tape's sufficient condition, rule dysfunctionality, is a rather abstract concept (Kaufmann and Feeney 2014). It required cognitive efforts on behalf of the participants to process the information provided in the bureaucracy treatments and to relate their own values to the outcomes of the concrete experience. Such slow thinking based on rational deliberation stands in contrast to fast thinking, when individuals use shortcuts to arrive at their judgments (Kahneman 2011). Since negative emotions are a major facilitator of fast thinking (Kahneman and Tversky 1979), the misperceptions of functional bureaucratic rules as dysfunctional red tape could have originated in the negative affective reactions to the rules' delays and burdens. An alternative interpretation of our observations is that the rules' delays and burdens have exceeded their contributions to participants' valued objectives. This would be in line with the concept of multidimensional red tape as bureaucratic rules "whose contribution to stakeholders' objectives or values is less than the compliance and implementation resources expended on the rule" (Bozeman 2012, 257). However, such an assessment would have

Table 3 Group Comparisons of Treatment Groups with Control Group for Negative Emotions

Dependent Variable	Control Group	Delay Red Tape	Delay Bureaucracy	Burden Red Tape	Burden Bureaucracy	Strong Red Tape	Strong Bureaucracy
Anger	−0.12 (1.07)	0.42 (0.63)	0.48 (0.79)	0.71 (0.59)*	0.95 (0.76)**	1.26 (0.44)**	1.24 (0.81)**
Fear	0.24 (0.71)	0.33 (0.47)	0.36 (0.76)	−0.01 (0.54)	0.29 (0.48)	0.04 (0.56)	−0.04 (0.64)
Contempt	−0.39 (0.71)	−0.22 (0.62)	−0.28 (0.54)	−0.14 (0.63)	−0.01 (0.67)	−0.01 (0.64)	0.02 (0.58)
Disgust	0.31 (1.29)	0.36 (0.95)	0.14 (0.80)	0.81 (1.04)	0.85 (0.72)	0.93 (0.71)	0.79 (0.79)
Sadness	−0.21 (0.83)	−0.12 (0.64)	−0.16 (0.45)	0.30 (0.36)	0.35 (0.47)*	0.15 (0.42)	0.18 (0.44)
Confusion	−0.50 (1.41)	0.31 (0.76)*	0.42 (0.74)**	0.50 (0.53)**	0.63 (0.74)**	0.88 (0.41)**	0.79 (0.66)**
Frustration	−0.56 (1.18)	0.27 (0.69)*	0.13 (0.71)	0.20 (0.58)*	0.36 (0.60)**	0.72 (0.45)**	0.76 (0.62)**

Notes: Means displayed with standard deviations in parentheses. ANOVA post hoc tests with Sidak correction. * $p < .05$; ** $p < .01$;

required an even more thoughtful consideration of the situation by the study's participants. It is likely that individuals confounded the costs of compliance with their emotional reactions, which biased the cognitive process of weighting costs and benefits. This underscores the importance of distinguishing decision utility (i.e., the stated outcome favorability in our case) and experience utility (i.e., the experienced delays and burdens) in cost-benefit analyses (Weimer 2019).

Our findings support the conceptualization of red tape as a highly subjective—in our case, affectively driven—assessment rather than a rational appreciation of a rule's objective characteristics (Pandey and Marlowe 2015). Feelings-as-information theory has accumulated substantial evidence on how individuals rely on their emotions as an important source of information when judging a situation (Schwarz 2012). A separation of red tape misperceptions from dysfunctional delays and burdens thus risks distorting red tape measurements while underestimating the emotional pathways to important correlates of red tape. For instance, AET suggests that dissatisfaction is a direct correlate of negative emotions, and numerous studies have established this relationship (for a review, see Weiss and Beal 2005). Besides, memories of negative events are more influential than neutral or positive experiences when judging future situations (Kahneman and Tversky 1979). Since negative emotions also cause cognitive misattributions regarding the source of influence (Schwarz 2012), it is possible that citizens develop an enduring bias against the public sector in general (e.g., Marvel 2016). Emotions are thus a promising yet underexplored explanation for the growing evidence on biases in performance evaluations of public services (Andersen and Hjortskov 2016; George et al. 2018; Mok, James, and Van Ryzin 2017).

Research has shown that the observed discrete emotions of confusion, frustration, and anger have specific effects (for a review, see Nørgaard 2018). Especially confusion and anger are associated with intuitive decision-making (Lerner and Keltner 2000). Individuals attribute anger to the actions of another actor and not to the situation itself (Schwarz 2012), which may contribute to the emergence of sector-specific stereotypes. Anger is detrimental to trusting relationships (Dunn and Schweitzer 2005), suggesting that citizens' trust in particular public servants or the administration in general could be negatively affected by red tape perceptions. Anger also accounts for risk shifting in individuals (Finucane et al. 2000), while frustration increases the likelihood of deviant behaviors (Bennett and Robinson 2000). Thus, citizens may try to avoid red tape by rule-breaking or rule-bending behaviors.

DeHart-Davis (2017) has pointed out that public managers need to invest time in explaining the purpose of a given rule in order to enhance cooperative rule behavior by citizens. Likewise, Keiser and Miller (2019) have evidenced how attitudes toward welfare programs improve when providing information about the program to the public. However, given the similarity of emotional responses to treatments with and without information, it might rather depend on *how* public servants convey the message of purpose. Positive leadership styles (e.g., Gooty et al. 2010) as well as emotional intelligence (George 2000) and emotional labor (Guy, Newman, and Mastracci 2008) seem useful moderators for investigating emotional responses to bureaucratic red tape and their effects on

compliance and other outcomes. Training of public servants could prove useful for balancing the negative side effects of bureaucratic organization.

A clear limitation of this study is that we utilized only a small section of the AET model and did not account for these relationships empirically. Future studies should detail the mediating role of discrete emotions in the relationship between red tape and the aforementioned outcomes to advance our understanding about the underlying affective processes and the scope of their influence. This agenda seems promising for organization-internal red tape as well. If street-level bureaucrats experience similar negative emotions when enacting administrative rules, they, too, may perceive them as red tape and respond with similar attitudes and behaviors, for example by reducing their engagement to serve citizens (Zarychta, Grillos, and Andersson 2019) or by taking actions which undermine the rules' intentions ("guerrilla government"; see Hollibaugh, Miles, and Newswander 2019). Furthermore, we did not investigate the cost-benefit trade-off as advanced by multidimensional red tape (Bozeman 2012). To keep the experimental design rigorous, we fixed the objective conditions of administrative delay and administrative burden across treatments. It remains an open question whether a shorter delay or a less detailed form would have caused less emotional responses and, in turn, less red tape perceptions.

Admittedly, the design of our study as pass-through red tape was quite elaborate (Kahn, Katz, and Gutek 1976). It is possible that some participants did not understand why the additional payout required time or information on a separate form so that the funding agency could control for bogus payouts while protecting personal data. We gathered qualitative statements after the study to control for this possibility and participants reported no serious doubts. On the contrary, most participants in the delay treatments were honestly surprised to receive the full amount in cash right after the study. Still, individuals may have had problems to grasp our operational distinction between red tape and bureaucracy. Given the moderate reliability in the initial study ($\alpha = .72$), the low reliability of Borry's (2016) Red Tape Scale raised some concerns in this regard. However, the measure is somewhat contested (van Loon 2017) and has not been replicated in other published studies so far. Further experiments should elaborate on the importance of rule functionality on red tape perceptions by means of other treatments and different measures.

Although laboratory experiments are advantageous for internal validity, they possess limited generalizability. Public universities are a specific setting and students are not representative of the whole population. Nonetheless, citizens are increasingly interacting with municipalities through online forms and information on websites (Moon, Lee, and Roh 2014), and (younger) students are more skilled at technology use than the average (older) citizen (Deal, Altman, and Rogelberg 2010). From this perspective, we have no reason to expect that a representative sample would have reacted with less confusion, frustration, or anger when filling out forms for public agencies outside a laboratory setting. Since survey-based measures are problematic for the assessment of emotions (Ashkanasy, Humphrey, and Huy 2017), a triangulation of our findings in the field is challenging. Still, facial coding of video data

would generally be possible in a real online interaction between citizens and the state. Our methodological approach prepares the ground for such replications.

Conclusion

Given the prominence of bureaucratic rules to enforce public values in the constitutional state, it is important that scholars understand the causes and consequences of negative perceptions of these rules. Within this study's limitations, we may conclude that bureaucratic encounters are emotionally exhausting for citizens. Especially confusion, frustration, and anger may cause misattributions and interfere with the cognitive ability of individuals to distinguish between functional rules and dysfunctional red tape. These results warrant several implications. First, they suggest that negative emotions of citizens are linked to the modus operandi of public administrations. Second, the findings stress the importance for public servants to counterbalance the negative emotional consequences of bureaucratic organization. In this regard, reducing (unnecessary) administrative burdens for citizens seems to be more effective than shortening administrative delays.

Acknowledgments

We would like to express our appreciation to the guest editors, Christopher Carrigan, Sanjay K. Pandey, and Gregg Van Ryzin, for compiling this symposium. Their constructive advice and that of the three anonymous reviewers has been extremely helpful.

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Supporting Information

Supplementary appendices may be found in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1111/puar.13116/full>.