

Liekat, Marlen C.; Hensel, David; Vogel, Dominik; Vogel, Rick

Article — Published Version

Aggressions and associations: How workplace violence affects what public employees think of citizens

Public Administration

Provided in Cooperation with:

John Wiley & Sons

Suggested Citation: Liekat, Marlen C.; Hensel, David; Vogel, Dominik; Vogel, Rick (2022) : Aggressions and associations: How workplace violence affects what public employees think of citizens, Public Administration, ISSN 1467-9299, Wiley, Hoboken, NJ, Vol. 102, Iss. 1, pp. 222-248, <https://doi.org/10.1111/padm.12909>

This Version is available at:

<https://hdl.handle.net/10419/290180>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.




If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by-nc/4.0/>

Aggressions and associations: How workplace violence affects what public employees think of citizens



Marlen C. Liegat  | David Hensel  | Dominik Vogel  | Rick Vogel 

Department of Socioeconomics, Universität Hamburg, Hamburg, Germany

Correspondence

Rick Vogel, Department of Socioeconomics, Faculty of Business, Economics and Social Sciences, Universität Hamburg, Von-Melle-Park 9, 20146 Hamburg, Germany.
Email: rick.vogel@uni-hamburg.de

Funding information

Deutsche Forschungsgemeinschaft, Grant/Award Number: 438530488

Abstract

Scholars have recently spent growing attention to what public employees think of citizens, which influences policy implementation through more manifest attitudes and behaviors. The origins of employees' positive and negative associations with citizens have, however, not been examined thus far. This study draws attention to workplace aggression as critical incidents in state-citizen encounters and examines the traces they leave in employees' subsequent thinking about citizens. Building on social cognition and affective events theory, we hypothesize that the more severe the aggressive incidents have been, the more negative employees' associations with citizens become. Results of a free association task confirm this assumption. Type of work and the gender of the employees moderate the relationship between aggressions and associations. The findings raise awareness for the significance of workplace aggression and provide an outline and agenda of a socio-cognitive theory of public employees' associative thinking about citizens.

Zusammenfassung

Die aktuelle Forschung beschäftigt sich zunehmend damit, welche Einstellungen Mitarbeiter des öffentlichen Dienstes

gegenüber Bürger*innen haben. Woraus positive sowie negative Assoziationen der Mitarbeiter im öffentlichen Dienst mit Bürger*innen resultieren, wurde bisher jedoch nicht erforscht. Diese Studie fokussiert sich auf Aggressionen am Arbeitsplatz als kritische Vorfälle und untersucht deren Auswirkungen auf die Einstellung der Mitarbeiter*innen gegenüber Bürger*innen. Aufbauend auf sozialer Kognition und der Theorie der affektiven Ereignisse stellen wir die Hypothese auf, dass die Assoziationen der Mitarbeiter*innen mit Bürger*innen umso negativer ausfallen, je schwerer die aggressiven Vorfälle waren. Die Ergebnisse einer freien Assoziationsaufgabe bestätigen diese Annahme. Die Art der Arbeit und das Geschlecht der Mitarbeiter moderieren den Zusammenhang zwischen Aggressionen und Assoziationen. Die Ergebnisse sensibilisieren für die Einflüsse von Aggressionen am Arbeitsplatz und liefern einen Entwurf sowie eine Agenda für eine sozial-kognitive Theorie des assoziativen Denkens von Angestellten im öffentlichen Dienst über Bürger*innen.

1 | INTRODUCTION

An emerging stream in the public administration (PA) literature has examined the attitudes that public employees develop toward citizens and upon which they allocate attention and make decisions, often with severe consequences for the personal lives of citizens (e.g., Keulemans & van de Walle, 2020; Raaphorst & van de Walle, 2018). A number of studies have begun to explore more deeply into the cognitive underpinnings of employees' attitude formation and decision-making (Davidovitz & Cohen, 2022). For example, Davidovitz and Cohen (2022) show that social workers cultivate different types of citizens, which emerge as cognitive associations when employees are exposed to citizen cues. A number of these categories are negatively charged, such as "manipulative" and "aggressive," whereas others have a positive valence, such as "cooperative" and "honest" (Davidovitz & Cohen, 2022). This scholarship provides first insights into the content and structure of employees' associative thinking about citizens. The origins of these positive and negative associations have, however, not yet been traced back to employees' long-term experiences from past interactions with citizens. Particularly, incidents of workplace aggression by citizens may be critical biographical events that public employees memorize and that affect their subsequent thinking about citizens.

Obviously, the experience that employees have gained in encounters with citizens during their professional life is not always pleasant. Both popular media and academic studies have reported violent attacks on public employees, with growing frequency in recent years (Devi, 2020; Dye et al., 2020; Tummers et al., 2016). Such incidents of workplace aggression can be critical events in the biography of public employees, as they are stored in long-term memory and can be recalled easily (Fiske & Taylor, 2021; Nosek & Banaji, 2009). Previous research has shown that experiencing workplace aggression (Lotta et al., 2022; Savaya et al., 2011), including the witnessing of such incidents (Dupré et al., 2014; Enosh et al., 2013), strongly affects employees' attitudes toward clients, leading, for instance, to lower

trust in citizens (Davidovitz & Cohen, 2022). However, the cognitive associations that mediate experiencing or witnessing workplace aggression and the formation of attitudes toward citizens have largely been a black box.

We address this gap by examining which traces workplace aggression leaves in the subtle and schematic images of citizens that public employees bring to their jobs. How does workplace aggression affect public employees' cognitive associations with citizens? And does this relationship between aggressions and associations vary with different forms and grades of workplace violence? Building on social cognition (Fiske & Taylor, 2021) and affective events theory (Weiss & Cropanzano, 1996), we assume that incidents of workplace aggression are related to public employees' negative associations with citizens. In this study, we combine qualitative data and quantitative analysis. First, survey participants provided free associations with citizens as well as responses to a quantitative survey on workplace aggression and some control variables. In the second step, the emotional valence of the associations was computer-coded using a dictionary, and the effect of workplace aggression on the emotional valence of the associations was tested using regression models. Results confirm the hypothesized relationship between aggressions and associations, but only in cases of more serious incidents, including the use of weapons and other forms of physical violence, while harassments do not leave such traces.

With these findings, the study makes contributions to two research fields: scholarship on public employees' social categorization (Jilke & Tummers, 2018), on the one hand, and workplace aggression research (Tummers et al., 2016), on the other hand. First, based on a socio-cognitive perspective, we contribute to research on public employees' social categorization by exploring origins of the associations they have with citizens. This perspective is important to understand policy implementation and employees' decision-making in everyday settings, because manifest attitudes and visible behaviors of frontline employees have important consequences for the delivery of public services and the user experience within the delivery of public services (Lipsky, 2010). As Maynard-Moody and Musheno (2003) stress, policy implementation can only be fully understood when taking the variance in case-to-case decisions into account. An important source of variation is the cognitive frame that public employees bring to their job and through which they process stimuli from citizens. A deeper understanding of both the content and the origin of these frames will therefore also enhance the understanding of policy implementation and citizen-state interactions.

Second, our study contributes to research on workplace aggression, a field of growing scholarly and practical relevance (Caillier, 2021; Davidovitz & Cohen, 2021b; Tummers et al., 2016). Aggressive citizens are not only regarded as highly challenging (Davidovitz & Cohen, 2022), but their aggressive behaviors also affect the manner in which frontline employees operate (Davidovitz & Cohen, 2021b). Studying violent encounters between citizens and public employees contributes significantly to a better understanding of public employees' behaviors toward these clients, especially when it comes to the use of discretion. Discretion usage while providing service to citizens determines policy outcomes (Davidovitz & Cohen, 2021b). We study the consequences of aggressive incidents for the victims beyond immediate affective responses and at levels below tangible attitudes, where cognitive associations with citizens reside. This is a neglected aspect of workplace aggression, as such cognitive structures are difficult to access and even more difficult to correct but likely to yield long-term consequences for the execution of public sector jobs.

2 | THEORETICAL BACKGROUND

2.1 | The socio-cognitive perspective in public administration

Although studies concerning the process of social categorization pay attention to various attitudinal objects (i.e., employees, leaders, occupations, or the public sector at large) and use different terminology, they share common ground, as they echo general principles of social cognition (Fiske & Taylor, 2021). In all fields of human activity, people are exposed to an overwhelming load of information far beyond their processing capacities. To reduce cognitive load, people develop categories that guide them through the social world and determine how they respond to it

(Allport, 1954). Perceptual cues from the environment are compared with cognitive representations of social categories that emerge through socialization and experience (Operario & Fiske, 2003) and are stored in long-term memory (Carlston, 2010; Tulving, 1972). If perceived social objects (such as actors or situations) resonate with an available social category without causing too much cognitive dissonance, they are classified as members of that category and the effort of further information search can be saved. These cognitive processes often lead to gross simplifications and, in turn, biased decisions, but provide orientation and enable actions and decisions in an otherwise excessively complex world (Lieberman, 2007). Although people might have introspective access to their categorical thinking, much of it occurs at preconscious levels in a quasi-automatic manner (Uleman et al., 2008).

Across studies that have been conducted on stereotypes in the public sector, perhaps the largest overlap in the terminology is the notion of association (Bertram et al., 2022; Weißmüller & Vogel, 2021; Willems, 2020). Associations are cognitive relations between two items (e.g., objects, traits, and ideas), with the result that being confronted with one item activates a representation of the second (VandenBos, 2015). The literature also agrees that such associations do not occur singularly but in a larger network of multiple, simultaneous associations (Greenwald et al., 2002). There is also large agreement that associations are charged with emotional valence ranging from positive to negative (e.g., Vogel & Werkmeister, 2021; Weißmüller & Vogel, 2021).

An individual association is the smallest piece in a larger puzzle. Previous PA studies differ in the extent to which they attempt to solve this puzzle and identify patterns of interrelated associations. Most researchers have fed responses from association tasks into frequency analysis and compiled lists of recurring associations with public sector categories (Bertram et al., 2022; Weißmüller & Vogel, 2021; Willems, 2020). This step is often followed by coding the emotional loading of these associations, either by asking respondents for the (non-)desirability of attributes (Bertram et al., 2022; Willems, 2020) or by applying computer-aided sentiment analysis (Weißmüller & Vogel, 2021). Beyond the emotional valence of associations, however, scholarship has not yet explored their overarching structure, such as the patterns in which associations frequently co-occur (Vogel & Werkmeister, 2021). Accordingly, no term has yet been established for this larger associative network, beyond the level of single associations. General scholarship in social cognition is of limited help here, as it provides several notions with similar meaning. Among the possible terms are “mental models” (Johnson-Laird, 1983), “cognitive schemas” (Piaget, 1953), and “implicit theories” (Kelly, 1955), all of which may be adopted to denote the abstracted and generalized images of citizens that public employees bring to their jobs.

2.2 | What public employees think of citizens

Previous research has already provided evidence for processes of social categorization of citizens by public employees. Early work on street-level bureaucracy (Lipsky, 1980) has repeatedly shown how characteristics and behaviors of clients trigger attitudinal and behavioral responses of public employees. Such responses include employees' general willingness to help (Guul et al., 2021; Jilke & Tummers, 2018), the adoption of particular enforcement styles (De Boer et al., 2018), coping behavior (Baviskar & Winter, 2017; Tummers, 2017), and burnout (Ropes & de Boer, 2021). In a similar vein, research on police discrimination and violence (Andrews & Johnston Miller, 2013) shows how citizens who portray cues of a minority status are treated differently from those who are not associated with this category. This research suggests that the behaviors public employees show toward citizens are the result of social categorization, although available studies differ in the degree to which they theorize these processes from a socio-cognitive perspective.

The associations and larger cognitive categories that drive these processes of social categorization have, however, not been explored thus far. Several studies have examined how employees' more manifest attitudes toward citizens trigger categorization processes. For example, Baviskar and Winter (2017) show that aversions toward citizens provoke employees to think more in terms of social categories and, in turn, to treat citizens unequally. Keulemans and van de Walle (2020) have recently introduced a measurement instrument for such attitudes toward clients. Their

multidimensional model includes a cognitive component, reflecting the beliefs and assumptions that employees have about citizens. However, psychometric instruments cover explicit attitudes only within the predefined range of a few items, leaving little room for respondents to freely associate with the attitudinal object. Accordingly, PA scholars still know little about public employees' associations with citizens and the larger cognitive structures into which they are embedded.

2.3 | Why public employees think so: Workplace aggression as affective events

Previous scholarship has already emerged on *what* public employees think of citizens (i.e., in terms of citizens' deservingness; Jilke & Tummers, 2018; Kallio & Kouvo, 2015) or trustfulness (Davidovitz & Cohen, 2021a, 2022; Raaphorst & Groeneveld, 2018; Raaphorst & van de Walle, 2018), but not *why* they think like that (i.e., the origin of these associations). Social cognition suggests that the cognitive structures from which associations emerge spontaneously in response to situational cues are the legacy of socialization and experience over long periods of time. This developmental process does not require direct contact and encounters with the members of a social category but may also be driven by the social transmission of stereotypes from the environment (Smith & Zárate, 1990). Direct encounters with others, if and once they occur, can, however, have long-lasting impact on the social categories in which people schematically think. Many public sector workers have frequent encounters with citizens, and certain encounters may shape their later thinking of citizens more than others. This is particularly likely for unpleasant encounters with citizens who show aggressive behaviors toward frontline employees. Given the monopoly situation of the state, citizens do not have the option to be served by any alternative providers, which possibly increases aggressive behaviors (Tummers et al., 2016). Furthermore, public employees do not have the opportunity to select the clients they want to serve and may have to deal with aggressive citizens (Savaya et al., 2011).

Workplace aggression is a serious problem in public organizations and beyond. A meta-analysis by Dhanani et al. (2021) shows that, on average, every third employee experiences mistreatment at the workplace, and even more witness such events. Preliminary evidence shows that workplace violence has further increased during the Covid-19 pandemic, with healthcare workers (Byon et al., 2022) and political candidates (Herrick & Thomas, 2022) as frequent victims. Spector et al. (2007) have stated that aggressions have become endemic to the workplace. In most incidents of workplace aggressions, the perpetrators are not members of the organization but clients, patients, or students (Grandey et al., 2002; Spector et al., 2007). Accordingly, being in contact with people outside of the organization is a risk factor for experiencing or witnessing verbal harassment and physical abuse (Hoobler & Swanberg, 2006).

The price for being the target of workplace aggression is high, as victims suffer from psychological, emotional, and physiological consequences (Aquino & Thau, 2009). More precisely, verbal and physical aggressions from patients, as they frequently occur in the healthcare sector, are related to physical as well as psychological strain (Spector et al., 2007) and burnout of nurses (Vincent-Höper et al., 2020). Findings confirm that aggression in the workplace also diminishes work-related attitudes, such as meaningfulness at work and satisfaction with job stress, but increases turnover intentions (Caillier, 2021). These individual outcomes eventually affect the organization, because a general negative climate, increased absenteeism, higher turnover rates, and low performance are possible consequences (Enosh et al., 2013). Therefore, it is not surprising that PA scholarship has devoted attention to the problem of workplace aggression (Lipsky, 2010) and that interest has recently accelerated (Caillier, 2021; Davidovitz & Cohen, 2021b; Tummers et al., 2016; Vincent-Höper et al., 2020).

While previous research has demonstrated that aggressive events may strongly affect employees' attitudes toward clients (Davidovitz & Cohen, 2021b, 2022; Savaya et al., 2011), it has not been empirically researched how incidents of workplace aggression affect cognitive associations that public employees have with citizens. Affective events theory (Weiss & Cropanzano, 1996) provides useful explanations of why and how workplace aggression leaves traces in public employees' associative thinking of citizens. It emphasizes the role of "affective events as proximal causes of affective reactions and then as more distal causes of behaviors and attitudes through affective

mediation" (Weiss & Cropanzano, 1996, p. 31). A core assumption is that work-related events can cause emotional responses or mood modifications, which may, in turn, influence workplace cognitions, attitudes, and behaviors. Such external events disrupt the monotony of affect patterns, which are determined by internal factors, such as mood cycles, affect dispositions, or situational influences of more enduring character (Weiss & Cropanzano, 1996).

Certain affective events have the potential to be veritable "shocks" (Weiss & Cropanzano, 1996, p. 43). Arguably, although incidents of workplace aggression may occur very infrequently, they can indeed be high-impact shocks and elicit significant affective responses. Previous research has corroborated that experiencing or witnessing workplace aggression undeniably arouses affective reactions like anger, frustration, and sadness (Grandey et al., 2002) or fear (Schat & Kelloway, 2000). In turn, affect has been shown to influence the manner how people perceive the social world and which information they select and process from their environment (Forgas, 2008). We conclude from this theory and research that precedential events of workplace aggression by citizens are likely to alter the associations that public employees subsequently have with citizens. More specifically, experiencing or witnessing workplace aggression in the past is likely to affect the emotional valence of these associations such that they are charged more negatively.

We expect that the likelihood of workplace aggression being perceived as critical and memorable incidents that elicit affective responses will depend on the severity of the aggression (Barling, 1996; Glomb, 2002). For example, while an encounter with an unfriendly and uncooperative citizen might not be perceived as an incident that affects how public employees think about citizens in general, being confronted with an armed client is much more likely to lead to an affective response. We therefore test the following hypothesis: *The more severe the workplace aggression that public employees experience or witness is, the more negative are the associations they have with citizens.* We leave it to a more exploratory analysis to test which additional role the victims' sociodemographic characteristics play.

3 | DATA AND METHODS

3.1 | Sampling

The study was conducted online and implemented with the survey questionnaire software Questback. A professional panel service provider that conforms to the ESOMAR codes and guidelines for online access panels carried out the subject recruitment and incentive payment (€0.75). The final sample consisted of $n = 204$ participants working in the public sector in Germany; 55.4% were female. The participants' age ranged from 20 to 67 years ($M = 45.59$, $SD = 12.32$), with an average tenure of 18.96 years ($SD = 13.18$). The majority of the participants worked full-time (81.8%) versus part-time (16.7%) or under other forms of contract (1.5%). Most respondents were employed at the state level (37.7%), followed by the local level (35.8%), the federal level (16.7%), and social security organizations (9.8%). The most common subfields were general public services and education (both 21.6%), followed by public health services (19.1%) and public order and security (12.7%). The rest of the sample works in other subfields of the public sector, such as economic affairs or housing (25.0%).

3.2 | Measurements

3.2.1 | Dependent variable

The dependent variable in our research model is the emotional valence of associations with citizens. In a free association task (Weißmüller & Vogel, 2021; Willems, 2020), the participants were first asked to provide at least five attributes that spontaneously come to their mind when thinking of typical citizens within the context of their current job. Such an open measure is best suited to ensure that judgments are reported in participants' own words (Crano &

Prislin, 2008), accounting for respondents' overt associations with citizens (Schnabel & Asendorpf, 2013). Following the recent example of Weißmüller and Vogel (2021) and recommendations of Van Atteveldt et al. (2021), the attributes in German language were then subjected to a sentiment analysis on the basis of a dictionary. More precisely, we used the *GermanPolarityClues* dictionary (Waltinger, 2010), a systematic and validated inventory of more than 10,000 German words experimentally tested for their emotional valence. Using a dictionary for coding has the advantage of minimizing the amount of human coding and thus of increasing validity and reliability. 83.1% of the attributes could be directly matched to the listed words. The 16.9% of attributes that were not covered by the dictionary were coded manually and collaboratively by two of the authors. Disputed codings were solved in discussions among all authors. Afterward, the valence of all attributes was reassessed. Fourteen attributes were manually recoded because the valence was misrepresented in the context of citizen associations (e.g., the valence of the attribute "social" was recoded from negative to positive). Table 1 shows examples of codings, whereas Appendix S1 presents the complete list of coded attributes with the assigned emotional valences. We coded the emotional valence with -1 for negative, 0 for neutral, and $+1$ for positive and calculated, for each respondent, a sum index across all attributes.

3.2.2 | Independent variable

After having provided the associations, the participants answered survey questions on incidents of workplace aggression, which they either experienced themselves or witnessed. Incidents of workplace aggression that occurred to coworkers were included, because secondary exposure to workplace aggression is more likely than primary experiences (Dupré et al., 2014) and has detrimental effects as well (Dupré et al., 2014; Schat & Kelloway, 2000). All questions were adopted from the German questionnaire "Types of threats during interactions with customers" ["Formen der Bedrohung im Kundenverkehr", FoBiK] (Arnold & Manz, 2007). We used a 10-point scale, ranging from $1 = \text{never}$ to $10 = \text{several times a day}$, to assess how often 17 different types of workplace aggression targeted at respondents themselves or at their coworkers occurred. The FoBiK questionnaire covers all dimensions of aggression: direct and indirect, physical and verbal, and active and passive aggression (Buss, 1961). The full wording of all items is presented in Appendix A. The internal consistency of the FoBiK scale was high (Cronbach's $\alpha = 0.94$; McDonald's $\omega = 0.94$).

Based on a categorization scheme provided with the FoBiK (Appendix B), the participants were grouped into one of five levels of severity of workplace aggression. By severity of aggression, we refer to the risk that an event may cause psychological or physical harm (Barling, 1996). The first category describes controversial conversations. In such cases, clients may be under the influence of alcohol or drugs during the encounter or refuse to cooperate. The second category reflects harassment and maladjusted social behaviors as well as property damage. The third category includes physical aggression, for example, fisticuffs, violent arguments, coercion, and serious threats against the

TABLE 1 Code matching principle

| Matching principle | <i>n</i> | % | Example (Original → Code) |
|---------------------------------|----------|--------|--|
| Direct match in the dictionary | 767 | 83.1% | Negative (-1): "angry" → angry Neutral (0): "direct" → direct Positive ($+1$): "grateful" → grateful |
| Synonym match in the dictionary | 156 | 16.9% | Negative (-1): "overhasty" → hasty Neutral (0): "taxpayer" → taxpaying Positive ($+1$): "gratitude for support" → grateful |
| Total | 923 | 100.0% | |

respondents or their coworkers. In the last category, workplace aggression culminates in the use of weapons or the like, or in the instruction of a third party to do so. The categorization of individual cases was based on the most severe among potentially many forms of workplace aggression that the participants have experienced or witnessed. For example, if the participants experienced controversial conversations (level 1), harassment (level 2), and physical aggressions (level 3) but were *not* exposed to citizens threatening them with weapons or tools (level 4), they were assigned to level 3, as this is the highest level among these experiences. This assignment would also be true if no lower-level (i.e., levels 1 and 2) incidents had occurred. Workplace aggression is thus an ordinal variable with five levels, with 0 reflecting the case of no experiences with workplace aggression at all.

3.2.3 | Controls

Sociodemographic variables, such as gender, age, job tenure, and job characteristics (administrative level, frequency of contact with citizens, and part-time contract), were measured in the first part of the survey. Furthermore, the participants were asked to characterize the type of work they do in the public sector. While certain tasks are service-related and mainly grant benefits to citizens, others are of a more restricting nature and predominantly impose

TABLE 2 Descriptive statistics

| Variable | M | SD | Min | Max |
|--|--------|--------|-----|-----|
| Emotional valence of associations with citizens ^a | −0.711 | 2.996 | −6 | 6 |
| <i>Workplace aggression</i> | | | | |
| No workplace aggression | 0.128 | 0.334 | 0 | 1 |
| Controversial conversations | 0.025 | 0.155 | 0 | 1 |
| Harassment/property damage | 0.186 | 0.390 | 0 | 1 |
| Threats/physical assault | 0.382 | 0.487 | 0 | 1 |
| Weapons/tools | 0.279 | 0.450 | 0 | 1 |
| Age | 45.593 | 12.316 | 20 | 67 |
| Gender ^b | 0.554 | 0.498 | 0 | 1 |
| University degree ^c | 0.495 | 0.501 | 0 | 1 |
| Part-time contract ^d | 0.167 | 0.374 | 0 | 1 |
| Tenure (in years) | 18.956 | 13.181 | 0 | 46 |
| <i>Administrative level</i> | | | | |
| Federal level | 0.167 | 0.374 | 0 | 1 |
| State level | 0.377 | 0.486 | 0 | 1 |
| Local level | 0.358 | 0.481 | 0 | 1 |
| Social security admin. | 0.098 | 0.298 | 0 | 1 |
| Type of work ^e | 5.260 | 3.070 | 0 | 10 |
| Frequency of personal interaction with citizens ^f | 3.211 | 1.652 | 1 | 5 |

Note: $n = 204$.

^a<0 = negative valence, >0 = positive valence.

^b0 = male, 1 = female.

^c0 = no, 1 = yes.

^d0 = no, 1 = yes.

^e0 = exclusively imposing obligations, 10 = exclusively granting benefits.

^f1 = never, 2 = rather than once a week, 3 = once a week, 4 = several times a week, 5 = at least once a day.

obligations. We control for this difference in the nature of participants' jobs, because it might influence the risk of being exposed to workplace aggression as well as the associations participants have with their clientele. The participants rated the type of work they do on a scale from 0 (exclusively imposing obligations) to 10 (exclusively granting benefits).

4 | RESULTS

The descriptives of all study variables are displayed in Table 2 (for intercorrelations, see Appendix C). The respondents provided a total number of 923 (289 unique) attributes that they associated with citizens (see Figure 1 for the most frequent associations). The subsequent sentiment analysis showed that 38.2% of these attributes have a positive valence, while 54.0% are negative. The remaining attributes (7.8%) were neutral. Appendix D shows an associative network, which provides additional descriptive information about the relationships between the associations.

Table 2 furthermore shows the distribution of the various forms of workplace aggression that the participants had experienced or witnessed. Only 12.8% did not experience or witness any kind of workplace aggression directed at them or coworkers. For 2.5% of the participants, controversial encounters were the most severe type of workplace aggression. Experiencing or witnessing harassment, maladjusted social behavior, or property damage were reported by 18.6% of public employees as the most severe form; 38.2% reported physical violence, obvious threats, and coercion, and 27.9% had witnessed or experienced aggressions of the most severe kind (i.e., use of weapons or the like, as well as the involvement of third parties to do harm).

To test our guiding hypothesis, we conducted a stepwise linear regression in R version 4.1 (R Core Team, 2021). Since the variance of residuals is unequal, we used a heteroscedasticity-consistent standard error estimator (HC1) in the analysis. Table 3 reports the regression results. Model 1 is a model that includes the emotional valence of associations with citizens as the dependent variable, the severity of workplace aggression as the predictor, and several control variables. The model reveals a significant effect of severity of workplace aggression on the emotional valence

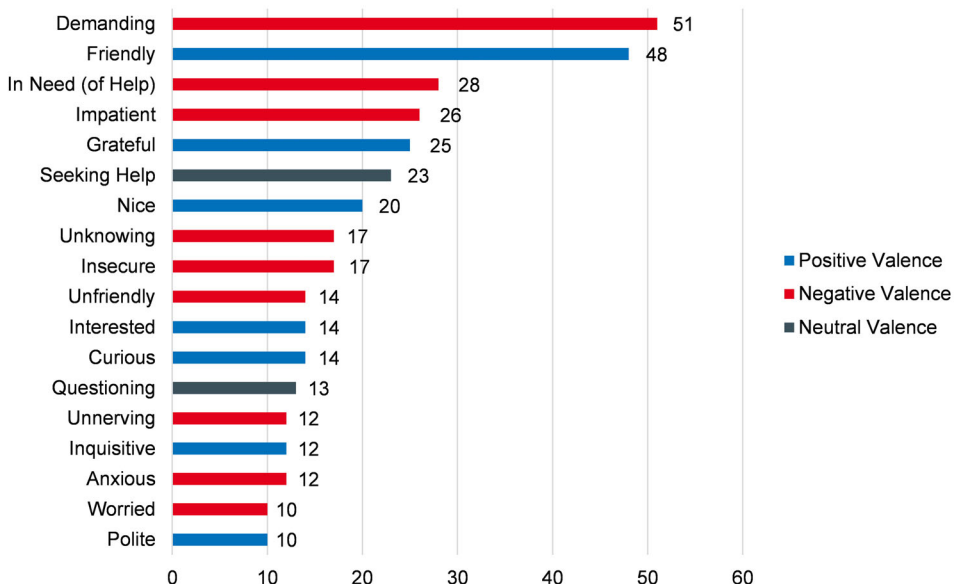


FIGURE 1 Most frequent associations with citizens [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

TABLE 3 Regression results (DV: Emotional valence of associations with citizens)

| | Model 1 <i>b</i> (SE) | Model 2 <i>b</i> (SE) | Model 3 <i>b</i> (SE) | Model 4 <i>b</i> (SE) |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| <i>Predictors^a</i> | | | | |
| Severity of WA | −0.504** (0.184) | | | |
| WA – Controversial conversations | | −0.567 (1.136) | 0.499 (0.835) | 1.245 (2.507) |
| WA – Harassment/property damage | | −0.273 (0.761) | 0.475 (0.978) | −0.856 (1.656) |
| WA – Threats/physical assault | | −2.029** (0.732) | −1.249 (1.004) | −3.238+ (1.661) |
| WA – Weapons/tools | | −1.645* (0.792) | 0.211 (0.994) | −2.559 (1.726) |
| <i>Controls</i> | | | | |
| Gender (1 = female) | 0.155 (0.494) | 0.360 (0.507) | 2.413* (1.208) | 2.316+ (1.196) |
| Type of work | −0.056 (0.066) | −0.059 (0.067) | −0.066 (0.067) | −0.374 (0.235) |
| Age | 0.020 (0.027) | 0.017 (0.026) | 0.026 (0.027) | 0.029 (0.026) |
| University degree | 0.504 (0.435) | 0.632 (0.435) | 0.683 (0.422) | 0.583 (0.437) |
| Part-time contract (1 = yes) | −0.247 (0.544) | −0.323 (0.530) | −0.465 (0.532) | −0.536 (0.546) |
| Tenure | −0.028 (0.025) | −0.024 (0.025) | −0.027 (0.024) | −0.029 (0.024) |
| State-level | −0.553 (0.657) | −0.623 (0.641) | −0.449 (0.635) | −0.447 (0.641) |
| Local level | −1.011 (0.650) | −0.917 (0.641) | −0.748 (0.633) | −0.716 (0.633) |
| Social security admin. | −1.656* (0.820) | −1.754* (0.821) | −1.545+ (0.818) | −1.704* (0.829) |
| Frequency of pers. interaction with citizens | 0.313* (0.140) | 0.340* (0.142) | 0.353* (0.138) | 0.350* (0.140) |
| <i>Two-way interactions</i> | | | | |
| WA – Controversial conversations*gender | | | −1.939 (2.562) | −1.093 (2.475) |
| WA – Harassment/property damage*gender | | | −1.357 (1.453) | −1.087 (1.471) |
| WA – Threats/physical assault*gender | | | −1.638 (1.370) | −1.506 (1.375) |
| WA – Weapons/tools*gender | | | −3.804** (1.458) | −3.623* (1.450) |
| WA – Controversial conversations*type of work | | | | −0.074 (0.387) |
| WA – Harassment/property damage*type of work | | | | 0.196 (0.268) |
| WA – Threats/physical assault*type of work | | | | 0.329 (0.253) |
| WA – Weapons/tools*type of work | | | | 0.486+ (0.273) |
| <i>Intercept</i> | −0.047 (1.262) | −0.257 (1.303) | −1.804 (1.408) | 0.016 (1.902) |

(Continues)

TABLE 3 (Continued)

| | Model 1 <i>b</i> (SE) | Model 2 <i>b</i> (SE) | Model 3 <i>b</i> (SE) | Model 4 <i>b</i> (SE) |
|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <i>n</i> | 204 | 204 | 204 | 204 |
| <i>R</i> ² | 0.092 | 0.119 | 0.161 | 0.180 |
| Adj. <i>R</i> ² | 0.040 | 0.054 | 0.079 | 0.081 |
| <i>F</i> | 1.773 | 1.831* | 1.966* | 1.808* |

Note: OLS regression; Robust standard errors in parentheses; WA: workplace aggression; Type of work: 0 = exclusively imposing obligations, 10 = exclusively granting benefits.

^aReference category for models 2–4 = no workplace aggression.

⁺*p* < 0.1.

**p* < 0.05.

***p* < 0.01.

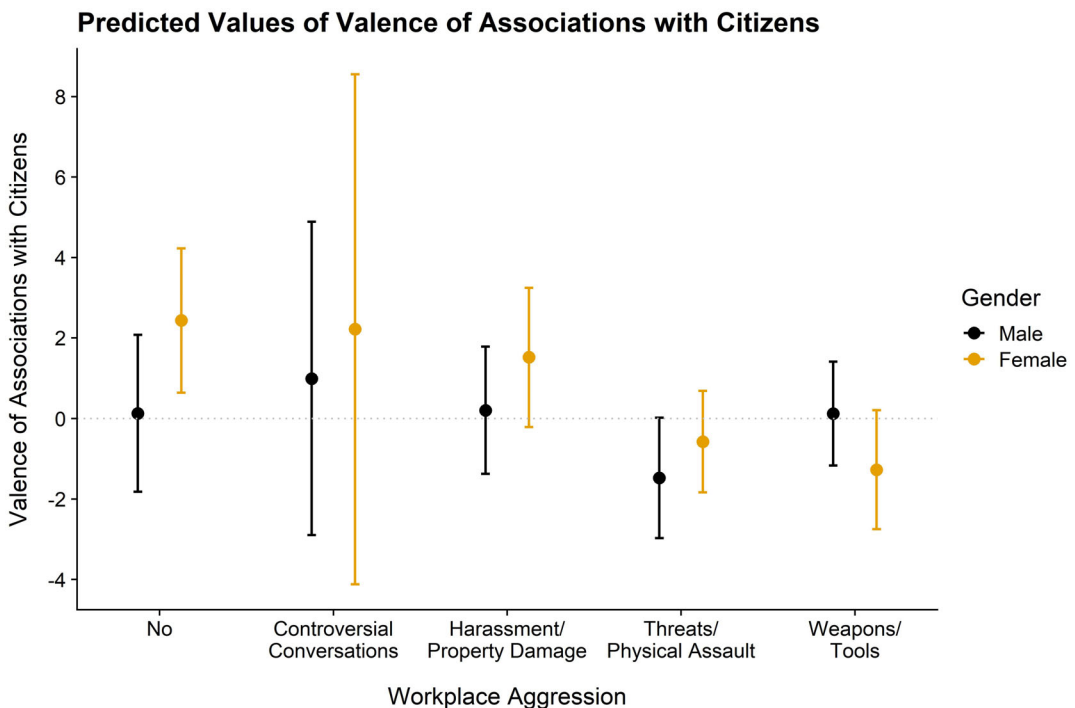


FIGURE 2 Two-way interaction of workplace aggression and gender (model 3) [Color figure can be viewed at wileyonlinelibrary.com]

of the associations with citizens ($b = -0.504$, $SE = 0.184$, $p = 0.007$). The more severe the experienced or witnessed incidents are, the more negative are participants' associations with citizens. This supports our guiding hypothesis.

Model 2 adds more nuance to the analysis and unpacks the effect of workplace aggression. For this purpose, the model shows the effects of the dummy-coded levels of workplace aggression, with no workplace aggression (i.e., level 0) as reference category. The model shows that only the more severe levels of workplace aggression, including physical threats ($b = -2.029$, $SE = 0.732$, $p = 0.006$) and the use of weapons or tools ($b = -1.645$, $SE = 0.792$, $p = 0.039$), have a significant effect on employees' associations with citizens.

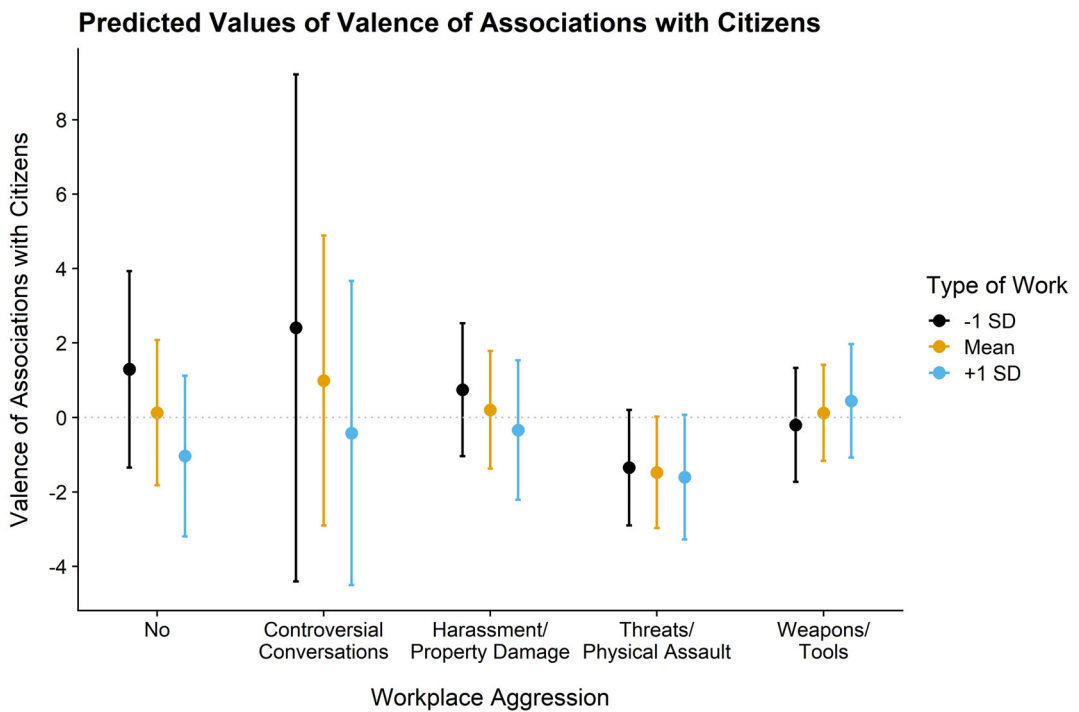


FIGURE 3 Two-way interaction of workplace aggression and type of work (model 3) [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

As for the sociodemographic controls, employees who have frequent personal interactions with citizens are more likely to report positive associations ($b = 0.340$, $SE = 0.142$, $p = 0.018$). The model shows a negative significant effect of working at social security administrations ($b = -1.754$, $SE = 0.821$, $p = 0.034$), compared to working at the federal level, which implies that employees working at social security administrations have more negative associations with citizens.

Since we were also interested in contextual factors influencing how experiencing or witnessing workplace aggression affects associations with citizens, we conducted several post hoc analyses reported in Models 3 and 4 (Table 3). Model 3 adds two-way interactions of workplace aggressions and the employees' gender. The highest level of workplace aggression interacts negatively with gender ($b = -3.804$, $SE = 1.458$, $p = 0.010$), such that experiencing or witnessing threats with weapons or tools lead to even more negative perceptions of citizens among women than among men. Model 4 also shows this finding ($b = 3.623$, $SE = 1.450$, $p = 0.013$). The interaction plot in Figure 2 illustrates this result.

Model 4 additionally considers two-way interactions between workplace aggression and the type of work. We only find a marginally significant effect for the interaction between the type of work and the highest level of aggression ($b = 0.486$, $SE = 0.273$, $p = 0.077$). Figure 3 illustrates this interaction.

5 | DISCUSSION

While PA scholarship has recently spent growing attention to how attitudes toward citizens affect public employees' judgments and behaviors (Chang & Brewer, 2022), the origin of these attitudes has rarely been investigated. The present study has addressed this gap, pioneering the exploration of associations that public employees have with

citizens and that emerge from critical encounters with them. Particularly, our focus was on how the emotional valence of associations with citizens relates to previous encounters with citizens that are obviously unpleasant and even threatening for employees: incidents of workplace aggression (Caillier, 2021; Tummers et al., 2016). Public employees have increasingly become victims of such aggressive behaviors. Results indicate that experiencing or witnessing workplace aggression does indeed leave traces in public employees' associations with citizens and, hence, in their more implicit thinking of them. This applies to the most severe forms of workplace aggression, that is, physical threats and use of weapons or tools, both of which are significantly related to more negative associations with citizens. We do not find the same relationship for less severe forms of aggression (i.e., controversial encounters and harassment). Hence, our guiding hypothesis finds partial support.

With this most general finding, our study suggests that there is a 'tipping point' beyond which experiencing or witnessing workplace aggression leaves sediments in employees' generalized images of citizens. Conversely, certain forms of workplace aggression are unrelated to the emotional valence of associations. Our findings support most other studies (e.g., Spector et al., 2007), indicating that violent encounters are the type of workplace aggression with the most harming potential. The tipping point appears to be the shift from harassment to serious threats and physical assault: As long as the physical integrity is not threatened, there are no significant differences in the associations of public employees who have experienced or witnessed workplace aggression and those of public employees who have no such experience at all. This might indicate that public employees have the capacity to cope with certain forms of aggression and do not reciprocate them with more pessimistic images of citizens in general. Following Davidovitz and Cohen's (2021b) analysis of such coping strategies, tolerance to violence (e.g., rationalizing the client's behavior) appears to be more common in the case of verbal violence, whereas physical violence is more likely to result in refusal to accept the behavior. Frontline employees do not accept being the client's "punching bag" (Davidovitz & Cohen, 2021b, p. 83), and therefore experiencing or witnessing physical violence results in public employees' negative associations with citizens.

Our findings also reveal that aggressive encounters in the workplace occur frequently, with an alarming incidence of potentially harmful incidents. Since not all aggressive events appear to impact associations with citizens, we support the proposition that workplace aggression is a manifold construct whose dimensions can have different outcomes. When it comes to the examination of workplace aggression, it is therefore useful to have a differential look at the various levels or kinds of violence.

However, although the less severe levels of workplace aggression do not manifest in negative associations, we refuse to conclude that mild forms of aggression toward employees, such as incivility and verbally inappropriate behaviors, are not a serious problem in the public sector. Incivility is often only the beginning of a spiral of violence, culminating in more intense aggressive behaviors (Andersson & Pearson, 1999). Among other consequences, customers' incivility may, in turn, increase the probability of employees showing deviant behaviors, especially if they previously perceived the customers as civil (Walker et al., 2014). Moreover, nonphysical aggressive behaviors are considered as antecedents for physical violence in the workplace (Schat et al., 2006).

Our findings therefore underscore the importance of dealing with workplace aggression that is initiated by the public and directed at frontline employees: The valence of associations may affect the provided services thereafter, because decisions will be contingent on employees' positive or negative attitudes toward citizens. Previous research has already shown that the relationship between citizens and frontline employees influences frontline employees' use of discretion (Davidovitz & Cohen, 2021b; Keulemans & Groeneveld, 2020; Raaphorst & Groeneveld, 2018). Our study shows that workplace violence initiated by citizens interferes with the associations public employees have with citizens, which in turn determine the attitudes toward the clientele they serve, and therefore may impact policy implementation significantly (Davidovitz & Cohen, 2021b; Lotta et al., 2022).

Our study reveals a number of further interesting relationships that give more nuance to the findings. First, we find that gender moderates the relationship between the highest level of workplace aggression and the emotional valence of associations with citizens. Female employees show even stronger negative responses to events involving the use of weapons or tools than male employees. Previous studies provide evidence that males tend to be more

aggressive than females and that most perpetrators of physical violence are men (Neuman, 2012; Zapf et al., 2020). Females experience more anxiety as a result of aggression and are more concerned about physical harm (Eagly & Steffen, 1986). This is the case, because females are more vulnerable due to differences in physical size and strength (Moore & Shepherd, 2007). Additionally, physical violence could also entail sexual violence (Neuman, 2012) or the threat thereof, which affects women more than men. Accordingly, more harm-causing incidents of workplace aggression have a higher impact on female employees, which manifests in more negative associations with citizens. Further research should specifically focus on these gender effects and address the role of sexually motivated incidents.

Second, a similar yet weaker interaction occurs between the experience or witnessing of workplace aggression and the type of work. At the highest level of workplace aggression, employees working in service-related jobs devoted to the granting of benefits tend to have even more negative associations with citizens than their colleagues who impose duties and restrictions on citizens. A possible explanation is that norms of reciprocity are more strongly violated when citizens show aggressions against employees in service-related jobs, because these services follow a helping and caring mission. In this case, severe workplace aggression might be a particularly unexpected event and, as such, a strong disconfirmation of expectations. However, since this interaction effect is significant only at a modest level, it should be interpreted with caution.

Third, the more often employees interact with citizens, the more positive the employees' associations are. This finding corroborates the notion of the contact hypothesis (Allport, 1954), which assumes that positive attitudes are promoted through contact between two groups. Another possible explanation is the self-selection of employees who have positive associations with citizens into jobs in which they frequently interact with citizens. Put differently, the person-job fit will be better if employees who think in more positive terms about citizens in the first place interact with them more frequently.

Fourth, the associations of employees working at social security agencies are more negative than the associations of those working in the federal administration. In a post hoc analysis of our data, we found associations of public employees working at social security agencies mainly referring to dissatisfied, demanding, or impatient clients. These attributes may reflect the poor general condition of social security agencies' clients, as they often suffer from age, health issues, or unemployment. Furthermore, social security agencies' employees are often responsible for preventing fraud of the welfare state, which might lead to a baseline skepticism toward their clients.

5.1 | Theoretical implications and agenda

Beyond these nuanced empirical findings, our study has a number of broader theoretical implications, as it reveals the outlines of a more general theory of how public employees think about citizens. Following scholarship in social cognition, we have introduced associations as the smallest unit in a larger associative network. The empirical results confirm that such associations do not co-occur coincidentally but in systematic patterns. The network in Appendix D shows that positively and negatively charged associations cluster in different regions of the network. This structure suggests that there is a prototype of a good citizen (i.e., friendly, grateful, and nice) and an antiprototype of a bad citizen (i.e., demanding, impatient, and unknowing) in public employees' thinking. Social cognition theory suggests that (anti-)prototypes are exemplary representatives of a social category (Foti et al., 2017), built of closely interrelated and semantically similar associations with the target of social attributions (i.e., citizens). They serve to simplify complex cognitive processes and provide benchmarks to help assess whether a particular person belongs to a specific group (Smith & Hogg, 2008).

Prototypes and antiprototypes of citizens are still only smaller elements in a larger and more holistic network of clustered associations. This cognitive schema through which public employees perceive citizens may be referred to as *implicit citizenship theories*. Such theories, therefore, comprise public employees' implicit conceptions of citizens' typical characteristics, which guide cognitive categorization processes and influence attitudes and behaviors toward citizens. We choose the notion of implicit theories (Eden & Leviatan, 1975) from a wider range of options, as it has

recently been introduced to another subfield of PA research (Vogel & Werkmeister, 2021). Like implicit theories in other fields of human activity, implicit citizenship theories are not scientific theories but rather theories of everyday life (or lay theories) that reduce cognitive effort and enable rapid action and decision-making despite the otherwise overwhelming richness and complexity of information. People develop everyday theories about themselves and others, about social relationships among each other, and about the causes and consequences of events (Levy et al., 2006; Sternberg, 1985).

The approach of implicit citizenship theories may contribute a novel perspective to research on cognitive processes underlying public employees' categorizations of citizens. It accounts for long-standing evidence that human cognition and behavior have a strong implicit component and applies it to public employees' perceptions of citizens. There is extensive prior knowledge about the socio-cognitive underpinnings of implicit categorization processes that public management researchers are just about to discover (Asseburg et al., 2020; Hesmert et al., 2022; Marvel, 2016). Our preliminary outline gives rise to a rich agenda for further theory building and research. For example, what is the more fine-grained content and structure of prototypes and antiprototypes in employees' implicit citizenship theories? How do attitude formation and decision-making interfere with these implicit theories once they are activated by perceptual cues? What biographical events other than workplace aggression affect the emergence, maintenance, and change of implicit citizenship theories? How exactly do biographical events, including positive experiences, translate into such theories, and which factors (e.g., organizational context, coworker support, and individual resilience) moderate this process? Finally, are the implicit theories which citizens have about public employees and vice versa dependent on each other?

5.2 | Practical implications

Certain implications for practitioners derive from our findings. Negative experiences from aggressive events, once they are reflected in generalized conceptions of citizens who are detached from the particular event, are likely to be difficult to correct and are likely to have long-lasting impact. Hence, our study should make public managers further aware of workplace aggression as a serious issue to deal with. Since organizational support (Schat & Kelloway, 2003), a positive violence climate (Spector et al., 2007), as well as follow-up counseling (Vincent-Höper et al., 2020) mitigate the adverse impact of aggression in the workplace, these factors might be important levers to consider for practitioners (Zhong et al., 2022). We encourage them to proactively take precautions against workplace aggression on an organizational and individual level. Organizational precautions include the establishment of a safe space or emergency signal systems. Organizational support might also be enlarged by a zero-tolerance policy regarding workplace aggression to improve the perceived violence climate. On an individual level, we recommend to implement trainings and counseling for public employees that help increase individual capabilities both to prevent but also to cope with aggression by citizens once workplace aggression has occurred. For tailoring these trainings and policies, a thorough risk assessment of public service jobs is an important instrument.

5.3 | Limitations

As any research, our study is not without limitations. First, our measure of workplace aggression is based on self-reports of employees with their well-known limitations (e.g., recall effects and social desirability). Furthermore, the instrument does not differentiate between aggressive events of which respondents had first-hand experience as victims and attacks on colleagues, which they only witnessed. The experience itself, and the consequences thereof, might differ between these cases. A more fine-grained assessment tool, preferably using multiple data sources, would provide even deeper insights into the phenomenon of workplace aggression, notwithstanding the effort involved in its implementation.

Second, our study uses a sample of German public employees, and generalizations from geographically restricted samples should always be made carefully. Although we assume the basic socio-cognitive process theorized in our study to reflect general human cognition and behavior, cultural influence cannot be ruled out. For example, the strong effect of confrontations with weapons could be dependent on how common such incidences are, which varies between countries.

Third, our sample size was limited. A larger sample would be desirable to reflect the considerable heterogeneity of the public sector and its professions. There is also variety, and probably even more variety, across different cultures of public service, calling for cross-country studies on the occurrence of and coping with workplace aggression by citizens.

Fourth, we combined a free association task with a sentiment analysis for the measurement of the dependent variable. While this approach is easy to implement and delivers interesting insights into public employees' associations with citizens, the final coding for emotional valence reflects this thinking on only one dimension. Social cognition is, however, driven by multiple processes of social categorization and these categories remain to be explored. Instruments from the family of implicit methods, such as the Implicit Association Task (Greenwald et al., 1998), might be helpful in this endeavor. With these truly implicit methods, researchers can also better account for the implicit dimension in implicit theories about citizens.

6 | CONCLUSION

The associations that public employees have with citizens and bring to their jobs are likely to be drivers of explicit attitudes and behaviors toward citizens and, in turn, important determinants of the quality and justice of public services. Understanding the antecedents of these cognitive schemas is therefore of paramount interest to PA scholars and practitioners. Our study has directed attention to workplace aggression as trigger events giving rise to emotionally charged trait associations with citizens. The results provide evidence that serious incidents of workplace aggression leave their marks on a network of cognitive associations that we refer to as implicit citizenship theories. This applies to female employees more than to male employees.

Longitudinal research designs are a particularly fruitful route for future research on workplace aggression by citizens and public employees' implicit citizenship theories. A longitudinal within-person design, such as diary studies, would allow for deeper insights into the continuity and change of implicit theories depending on incidents of workplace aggression. Such incidents often occur in a chain of aggressive events, but the cumulative effects and tipping points in this event history are still poorly understood. For example, the experience sampling method might facilitate the understanding of how different levels of aggression manifest and change over time in implicit theories.

ACKNOWLEDGMENT

This work was supported by the German Research Foundation (Grant number 438530488). Open Access funding enabled and organized by Projekt DEAL.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

OPEN RESEARCH BADGES



This article has earned Open Data and Open Materials badges. Data and materials are available at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/JEXCAQ>.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in dataverse at <https://doi.org/10.7910/DVN/JEXCAQ>

ORCID

Marlen C. Liegat  <https://orcid.org/0000-0001-6517-1116>

David Hensel  <https://orcid.org/0000-0001-8369-1377>

Dominik Vogel  <https://orcid.org/0000-0002-0145-7956>

Rick Vogel  <https://orcid.org/0000-0002-1361-5085>

REFERENCES

- Allport, G.W. (1954) *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Andersson, L.M. & Pearson, C.M. (1999) Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24(3), 452–471. Available from: <https://doi.org/10.5465/amr.1999.2202131>
- Andrews, R. & Johnston Miller, K. (2013) Representative bureaucracy, gender and policing: the case of domestic violence arrests in England. *Public Administration*, 91(4), 998–1014. Available from: <https://doi.org/10.1111/padm.12002>
- Aquino, K. & Thau, S. (2009) Workplace victimization: aggression from the target's perspective. *Annual Review of Psychology*, 60, 717–741. Available from: <https://doi.org/10.1146/annurev.psych.60.110707.163703>
- Arnold, J. & Manz, R. (2007) Analyse und Prävention gewalttätiger Übergriffe im Kundenverkehr. In: Bärenz, P., Metz, A.-M. & Rothe, H.-J. (Eds.) *Psychologie der Arbeitssicherheit und Gesundheit. Arbeitsschutz, Gesundheit und Wirtschaftlichkeit*. Kröning: Asanger Verlag, pp. 391–394.
- Asseburg, J., Hattke, J., Hensel, D., Homberg, F. & Vogel, R. (2020) The tacit dimension of public sector attraction in multi-incentive settings. *Journal of Public Administration Research and Theory*, 30(1), 41–59. Available from: <https://doi.org/10.1093/jopart/muz004>
- Barling, J. (1996) The prediction, experience, and consequences of workplace violence. In: Bulatao, E.Q. & VandenBos, G.R. (Eds.) *Violence on the job: identifying risks and developing solutions*. Washington, DC: American Psychological Association, pp. 29–49. Available from: <https://doi.org/10.1037/10215-001>
- Baviskar, S. & Winter, S.C. (2017) Street-level bureaucrats as individual policymakers: the relationship between attitudes and coping behavior toward vulnerable children and youth. *International Public Management Journal*, 20(2), 316–353. Available from: <https://doi.org/10.1080/10967494.2016.1235641>
- Bertram, I., Bouwman, R. & Tummers, L. (2022) Socioeconomic status and public sector worker stereotypes: results from a representative survey. *Public Administration Review*, 82(2), 237–255. Available from: <https://doi.org/10.1111/puar.13461>
- Buss, A.H. (1961) *The psychology of aggression*. Hoboken, NJ: Wiley. Available from: <https://doi.org/10.1037/11160-000>
- Byon, H.D., Sagherian, K., Kim, Y., Lipscomb, J., Crandall, M. & Steege, L. (2022) Nurses' experience with type II workplace violence and underreporting during the COVID-19 pandemic. *Workplace Health & Safety*, 70(9), 412–420. Available from: <https://doi.org/10.1177/21650799211031233>
- Caillier, J.G. (2021) The impact of workplace aggression on employee satisfaction with job stress, meaningfulness of work, and turnover intentions. *Public Personnel Management*, 50(2), 159–182. Available from: <https://doi.org/10.1177/0091026019899976>
- Carlston, D. (2010) Models of implicit and explicit mental representation. In: Gawronski, B. & Payne, B.K. (Eds.) *Handbook of implicit social cognition: measurement, theory, and applications*. New York: Guilford Press, pp. 38–61.
- Chang, A. & Brewer, G.A. (2022) Street-level bureaucracy in public administration: a systematic literature review. *Public Management Review*, 1–21. Available from: <https://doi.org/10.1080/14719037.2022.2065517>
- Crano, W.D. & Prislis, R. (Eds.). (2008) *Frontiers of social psychology. Attitudes and attitude change*. New York, NY: Psychology Press. Available from: <https://doi.org/10.4324/9780203838068>
- Davidovitz, M. & Cohen, N. (2021a) “I have learned my lesson”: how clients' trust betrayals shape the future ways in which street-level bureaucrats cope with their clients. *Public Administration*, 1–17. Available from: <https://doi.org/10.1111/padm.12769>
- Davidovitz, M. & Cohen, N. (2021b) Frontline social service as a battlefield: insights from street-level bureaucrats' interactions with violent clients. *Social Policy & Administration*, 56(1), 73–86. Available from: <https://doi.org/10.1111/spol.12756>
- Davidovitz, M. & Cohen, N. (2022) Which clients inspire or reduce the trust of street-level bureaucrats? *Administration & Society*, 54(8), 1516–1541. Available from: <https://doi.org/10.1177/00953997211061686>

- De Boer, N., Eshuis, J. & Klijn, E.-H. (2018) Does disclosure of performance information influence street-level bureaucrats' enforcement style? *Public Administration Review*, 78(5), 694–704. Available from: <https://doi.org/10.1111/puar.12926>
- Devi, S. (2020) Covid-19 exacerbates violence against health workers. *The Lancet*, 396(10252), 658. Available from: [https://doi.org/10.1016/S0140-6736\(20\)31858-4](https://doi.org/10.1016/S0140-6736(20)31858-4)
- Dhanani, L.Y., LaPalme, M.L. & Joseph, D.L. (2021) How prevalent is workplace mistreatment? A meta-analytic investigation. *Journal of Organizational Behavior*, 42(8), 1082–1098. Available from: <https://doi.org/10.1002/job.2534>
- Dupré, K.E., Dawe, K.-A. & Barling, J. (2014) Harm to those who serve: effects of direct and vicarious customer-initiated workplace aggression. *Journal of Interpersonal Violence*, 29(13), 2355–2377. Available from: <https://doi.org/10.1177/0886260513518841>
- Dye, T.D., Alcantara, L., Siddiqi, S., Barbosu, M., Sharma, S., Panko, T. et al. (2020) Risk of COVID-19-related bullying, harassment and stigma among healthcare workers: an analytical cross-sectional global study. *BMJ Open*, 10(12), e046620. Available from: <https://doi.org/10.1136/bmjopen-2020-046620>
- Eagly, A.H. & Steffen, V.J. (1986) Gender and aggressive behavior: a meta-analytic review of the social psychological literature. *Psychological Bulletin*, 100(3), 309–330. Available from: <https://doi.org/10.1037/0033-2909.100.3.309>
- Eden, D. & Leviatan, U. (1975) Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *The Journal of Applied Psychology*, 60(6), 736–741. Available from: <https://doi.org/10.1037/0021-9010.60.6.736>
- Enosh, G., Tzafrir, S.S. & Gur, A. (2013) Client aggression toward social workers and social services in Israel—a qualitative analysis. *Journal of Interpersonal Violence*, 28(6), 1123–1142. Available from: <https://doi.org/10.1177/0886260512468230>
- Fiske, S.T. & Taylor, S.E. (2021) *Social cognition: from brains to culture*, 4th edition. Los Angeles: SAGE.
- Forgas, J.P. (2008) The role of affect in attitudes and attitude change. In: Crano, W.D. & Prislin, R. (Eds.) *Frontiers of social psychology. Attitudes and attitude change*. New York, NY: Psychology Press, pp. 131–158.
- Foti, R.J., Hansbrough, T.K., Epitropaki, O. & Coyle, P.T. (2017) Dynamic viewpoints on implicit leadership and followership theories: approaches, findings, and future directions. *The Leadership Quarterly*, 28(2), 261–267. Available from: <https://doi.org/10.1016/j.leaqua.2017.02.004>
- Glomb, T.M. (2002) Workplace anger and aggression: informing conceptual models with data from specific encounters. *Journal of Occupational Health Psychology*, 7(1), 20–36. Available from: <https://doi.org/10.1037/1076-8998.7.1.20>
- Grandey, A.A., Tam, A.P. & Brauburger, A.L. (2002) Affective states and traits in the workplace: diary and survey data from young workers. *Motivation and Emotion*, 26(1), 31–55. Available from: <https://doi.org/10.1023/A:1015142124306>
- Greenwald, A.G., Banaji, M.R., Rudman, L.A., Farnham, S.D., Nosek, B.A. & Mellott, D.S. (2002) A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109(1), 3–25. Available from: <https://doi.org/10.31234/osf.io/xgswc>
- Greenwald, A.G., McGhee, D.E. & Schwartz, J.L.K. (1998) Measuring individual differences in implicit cognition – the implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464–1480. Available from: <https://doi.org/10.1037/0022-3514.74.6.1464>
- Gul, T.S., Pedersen, M.J. & Petersen, N.B.G. (2021) Creaming among caseworkers: effects of client competence and client motivation on caseworkers' willingness to help. *Public Administration Review*, 81(1), 12–22. Available from: <https://doi.org/10.1111/puar.13297>
- Herrick, R. & Thomas, S. (2022) Violence among state house candidates during the COVID-19 pandemic. *Legislative Studies Quarterly*, 47, 709–725. Available from: <https://doi.org/10.1111/lsq.12361>
- Hesmert, L., Hattke, F. & Vogel, R. (2022) The a priori of public leadership: social attributions to public and private leaders in different performance contexts. *Public Administration*, 100, 876–899. Available from: <https://doi.org/10.1111/padm.12780>
- Hoobler, J.M. & Swanberg, J. (2006) The enemy is not us: unexpected workplace violence trends. *Public Personnel Management*, 35(3), 229–246. Available from: <https://doi.org/10.1177/009102600603500306>
- Jilke, S. & Tummers, L. (2018) Which clients are deserving of help? A theoretical model and experimental test. *Journal of Public Administration Research and Theory*, 28(2), 226–238. Available from: <https://doi.org/10.1093/jopart/muy002>
- Johnson-Laird, P.N. (1983) *Mental models*. Cambridge: Cambridge University Press.
- Kallio, J. & Kouvo, A. (2015) Street-level bureaucrats' and the general public's deservingness perceptions of social assistance recipients in Finland. *Social Policy & Administration*, 49(3), 316–334. Available from: <https://doi.org/10.1111/spol.12094>
- Kelly, G.A. (1955) *The psychology of personal constructs*. New York: Norton.
- Keulemans, S. & Groeneveld, S. (2020) Supervisory leadership at the frontlines: street-level discretion, supervisor influence, and street-level bureaucrats' attitude towards clients. *Journal of Public Administration Research and Theory*, 30(2), 307–323. Available from: <https://doi.org/10.1093/jopart/muz019>
- Keulemans, S. & van de Walle, S. (2020) Understanding street-level bureaucrats' attitude towards clients: towards a measurement instrument. *Public Policy and Administration*, 35(1), 84–113. Available from: <https://doi.org/10.1177/0952076718789749>

- Levy, S.R., Chiu, C. & Hong, Y. (2006) Lay theories and intergroup relations. *Group Processes & Intergroup Relations*, 9(1), 5–24. Available from: <https://doi.org/10.1177/1368430206059855>
- Lieberman, M.D. (2007) Social cognitive neuroscience: a review of core processes. *Annual Review of Psychology*, 58, 259–289. Available from: <https://doi.org/10.1146/annurev.psych.58.110405.085654>
- Lipsky, M. (1980) *Street-level bureaucracy: dilemmas of the individual in public services*. New York: Russell Sage Foundation.
- Lipsky, M. (2010) *Street-level bureaucracy: dilemmas of the individual in public services*. New York: Russell Sage Foundation.
- Lotta, G., Lima-Silva, F. & Favareto, A. (2022) Dealing with violence: varied reactions from frontline workers acting in highly vulnerable territories. *Environment and Planning C: Politics and Space*, 40(2), 502–519. Available from: <https://doi.org/10.1177/23996544211031560>
- Marvel, J.D. (2016) Unconscious bias in citizens' evaluations of public sector performance. *Journal of Public Administration Research and Theory*, 26(1), 143–158. Available from: <https://doi.org/10.1093/jopart/muu053>
- Maynard-Moody, S. & Musheno, M.C. (2003) *Cops, teachers, counselors: stories from the front lines of public service*. Ann Arbor: University of Michigan Press.
- Moore, S.C. & Shepherd, J. (2007) Gender specific emotional responses to anticipated crime. *International Review of Victimology*, 14(3), 337–351. Available from: <https://doi.org/10.1177/026975800701400304>
- Neuman, J.H. (2012) Gender and sex differences in the forms of workplace aggression. In: Fox, S. & Lituchy, T.R. (Eds.) *Gender and the dysfunctional workplace*. Cheltenham, UK: Edward Elgar, pp. 14–28. Available from: <https://doi.org/10.4337/9780857932600.00008>
- Nosek, B.A. & Banaji, M.R. (2009) Implicit attitude. In: Bayne, T., Cleeremans, A. & Wilken, P. (Eds.) *The Oxford companion to consciousness*. Oxford: Oxford University Press, pp. 84–85.
- Operario, D. & Fiske, S.T. (2003) Stereotypes: content, structures, processes, and context. In: Brown, R. & Gaertner, S.L. (Eds.) *Blackwell handbook of social psychology: intergroup processes*. Oxford, UK: Blackwell Publishers Ltd., pp. 22–44. Available from: <https://doi.org/10.1002/9780470693421.ch2>
- Piaget, J. (1953) *The origin of intelligence in the child*. London: Routledge.
- R Core Team (2021). *R: a language and environment for statistical computing*. Vienna, Austria. Available from: <https://www.R-project.org/>
- Raaphorst, N. & Groeneveld, S. (2018) Double standards in frontline decision making: a theoretical and empirical exploration. *Administration & Society*, 50(8), 1175–1201. Available from: <https://doi.org/10.1177/0095399718760587>
- Raaphorst, N. & van de Walle, S. (2018) A signaling perspective on bureaucratic encounters: how public officials interpret signals and cues. *Social Policy & Administration*, 52(7), 1367–1378. Available from: <https://doi.org/10.1111/spol.12369>
- Ropes, E. & de Boer, N. (2021) Compassion towards clients: a scale and test on frontline workers' burnout. *Journal of European Public Policy*, 28(5), 723–741. Available from: <https://doi.org/10.1080/13501763.2021.1912150>
- Savaya, R., Gardner, F. & Stange, D. (2011) Stressful encounters with social work clients: a descriptive account based on critical incidents. *Social Work*, 56(1), 63–71. Available from: <https://doi.org/10.1093/sw/56.1.63>
- Schat, A.C., Frone, M.R. & Kelloway, E.K. (2006) Prevalence of workplace aggression in the U.S. workforce: findings from a national study. In: Kelloway, E.K., Barling, J., Hurrell, J. & Hurrell, J.J. (Eds.) *Handbook of workplace violence*. Thousand Oaks, London: SAGE, pp. 47–90. Available from: <https://doi.org/10.4135/9781412976947.n4>
- Schat, A.C. & Kelloway, E.K. (2000) Effects of perceived control on the outcomes of workplace aggression and violence. *Journal of Occupational Health Psychology*, 5(3), 386–402. Available from: <https://doi.org/10.1037/1076-8998.5.3.386>
- Schat, A.C. & Kelloway, E.K. (2003) Reducing the adverse consequences of workplace aggression and violence: the buffering effects of organizational support. *Journal of Occupational Health Psychology*, 8(2), 110–122. Available from: <https://doi.org/10.1037/1076-8998.8.2.110>
- Schnabel, K. & Asendorpf, J.B. (2013) Free associations as a measure of stable implicit attitudes. *European Journal of Personality*, 27(1), 39–50. Available from: <https://doi.org/10.1002/per.1890>
- Smith, J.R. & Hogg, M.A. (2008) Social identity and attitudes. In: Crano, W.D. & Prislin, R. (Eds.) *Frontiers of social psychology. Attitudes and attitude change*. New York, NY: Psychology Press, pp. 337–360.
- Smith, E.R. & Zárate, M.A. (1990) Exemplar and prototype use in social categorization. *Social Cognition*, 8(3), 243–262. Available from: <https://doi.org/10.1521/soco.1990.8.3.243>
- Spector, P.E., Coulter, M.L., Stockwell, H.G. & Matz, M.W. (2007) Perceived violence climate: a new construct and its relationship to workplace physical violence and verbal aggression, and their potential consequences. *Work & Stress*, 21(2), 117–130. Available from: <https://doi.org/10.1080/02678370701410007>
- Sternberg, R.J. (1985) Implicit theories of intelligence, creativity, and wisdom. *Journal of Personality and Social Psychology*, 49(3), 607–6273. Available from: <https://doi.org/10.1037/0022-3514.49.3.607>
- Tulving, E. (1972) Episodic and semantic memory. In: Tulving, E. & Donaldson, W. (Eds.) *Organization of memory*. London: Academic Press, pp. 381–402.
- Tummers, L. (2017) The relationship between coping and job performance. *Journal of Public Administration Research and Theory*, 27(1), 150–162. Available from: <https://doi.org/10.1093/jopart/muw058>

- Tummers, L., Brunetto, Y. & Teo, S.T. (2016) Workplace aggression: introduction to the special issue and future research directions for scholars. *International Journal of Public Sector Management*, 29(1), 2–10. Available from: <https://doi.org/10.1108/IJPSM-11-2015-0200>
- Uleman, J.S., Adil Saribay, S. & Gonzalez, C.M. (2008) Spontaneous inferences, implicit impressions, and implicit theories. *Annual Review of Psychology*, 59, 329–360. Available from: <https://doi.org/10.1146/annurev.psych.59.103006.093707>
- Van Atteveldt, W., van der Velden, M.A.C.G. & Boukes, M. (2021) The validity of sentiment analysis: comparing manual annotation, crowd-coding, dictionary approaches, and machine learning algorithms. *Communication Methods and Measures*, 15(2), 121–140. Available from: <https://doi.org/10.1080/19312458.2020.1869198>
- VandenBos, G.R. (2015) *APA dictionary of psychology*, 2nd edition. Washington: American Psychological Association. Available from: <https://doi.org/10.1037/14646-000>
- Vincent-Höper, S., Stein, M., Nienhaus, A. & Schablon, A. (2020) Workplace aggression and burnout in nursing—the moderating role of follow-up counseling. *International Journal of Environmental Research and Public Health*, 17(9), 3152. Available from: <https://doi.org/10.3390/ijerph17093152>
- Vogel, R. & Werkmeister, L. (2021) What is public about public leadership? Exploring implicit public leadership theories. *Journal of Public Administration Research and Theory*, 31(1), 166–183. Available from: <https://doi.org/10.1093/jopart/muaa024>
- Walker, D.D., van Jaarsveld, D.D. & Skarlicki, D.P. (2014) Exploring the effects of individual customer incivility encounters on employee incivility: the moderating roles of entity (in)civility and negative affectivity. *The Journal of Applied Psychology*, 99(1), 151–161. Available from: <https://doi.org/10.1037/a0034350>
- Waltinger, U. (2010) GermanPolarityClues: a lexical resource for German sentiment analysis. In *Proceedings of the seventh international conference on language resources and evaluation (LREC)*, Valletta, Malta.
- Weiss, H.M. & Cropanzano, R. (1996) Affective events theory: a theoretical discussion of the structure, causes and consequences of affective experiences at work. In: Staw, B.M. & Cummings, L.L. (Eds.) *Research in organizational behavior: an annual series of analytical essays and critical reviews*, Vol. 18. Greenwich, CT; London: JAI Press, pp. 1–74.
- Weißmüller, K. & Vogel, R. (2021) Sector-specific associations, trust, and survival of PPPs: a behavioral experiment based on the centipede game. *Journal of Public Administration Research and Theory*, 31(3), 578–595. Available from: <https://doi.org/10.1093/jopart/muaa050>
- Willems, J. (2020) Public servant stereotypes: it is not (at) all about being lazy, greedy and corrupt. *Public Administration*, 98(4), 807–823. Available from: <https://doi.org/10.1111/padm.12686>
- Zapf, D., Escartin, J., Scheppa-Lahyani, M., Einarsen, S.V., Hoel, H. & Vartia, M. (2020) Empirical findings on prevalence and risk groups of bullying in the workplace. In: Einarsen, S.V., Hoel, H. & Zapf, D. (Eds.) *Bullying and harassment in the workplace: theory, research and practice*. Boca Raton, FL: CRC Press, pp. 105–162. Available from: <https://doi.org/10.1201/9780429462528-5>
- Zhong, R., Lian, H., Hershcovis, M.S. & Robinson, S.L. (2022) Mitigating or magnifying the harmful influence of workplace aggression: an integrative review. *Academy of Management Annals*. Available from: <https://doi.org/10.5465/annals.2021.0144>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Liegat, M. C., Hensel, D., Vogel, D., & Vogel, R. (2024). Aggressions and associations: How workplace violence affects what public employees think of citizens. *Public Administration*, 102(1), 222–248. <https://doi.org/10.1111/padm.12909>

APPENDIX A: Measures

| Variable | Operationalization |
|---|--|
| Age | How old are you? (... years) |
| Gender | How do you describe your gender identity? (1 = female; 2 = male; 3 = other) |
| University degree | Do you have a university degree (bachelor's, master's, diploma, or state exam)? (1 = yes; 2 = no) |
| Public sector employment | Are you employed in the public sector? (1 = yes; 2 = no (→ end of survey)) |
| Part-time contract | Do you work in ...? (1 = part-time; 2 = full-time; 3 = others, namely ...) |
| Tenure | How many years have you been employed in public service? (... years) |
| Administrative level | To which level would you assign your employer? (1 = federal, 2 = state, 3 = regional, 4 = social security administration, 5 = other, namely ...) |
| Type of work | Is your daily work more about imposing obligations on citizens or more about granting of financial and non-financial benefits? Please rank your core activity on a continuum from 0 = exclusively imposing obligations to 10 = exclusively granting of benefits. (0 = exclusively imposing obligations to 10 = exclusively granting of benefits) |
| Frequency of personal interaction with citizens | How often do you have contact with citizens during your work? <ul style="list-style-type: none"> • Personal conversation on-site/in the office • By phone • In writing by letter/e-mail (1 = never, 2 = rather than once a week, 3 = once a week, 4 = several times a week, 5 = at least once a day) |
| Associations with citizens (free association task) | Please think carefully about your current work. From this perspective, what are the immediate associations that come to mind when you think of citizens? Please write down at least five characteristics of citizens. (first association, second association, third association, ...) |
| The last question again deals with your daily work. We ask you to refer exclusively to the time before the outbreak of the coronavirus (SARS-CoV-2), disregarding possible effects of the corona pandemic on your professional activities (such as reduced accessibility, home office, etc.). | |
| Workplace aggression (adapted from Arnold & Manz, 2007) | How often do you personally experience in your daily work that ... <ul style="list-style-type: none"> • citizens visit the facility under the influence of alcohol or drugs? • citizens show little or no willingness to cooperate or refuse to talk to you or your colleagues? • citizens refuse to perform a certain behavior or to make telephone contact? • citizens knowingly make unjustified complaints about you or your colleagues? • citizens knowingly spread untrue facts about you or your colleagues? |

| Variable | Operationalization |
|----------|---|
| | <ul style="list-style-type: none">• citizens are damaging property inside the building or your immediate environment?• citizens are damaging property in your office?• you or your colleagues are subjected to verbal harassment by citizens?• citizens threaten to harm themselves?• you, your colleagues, or your relatives are verbally threatened by citizens?• you or your colleagues are subjected to sexual harassment by citizens?• you or your colleagues are physically sexually harassed by citizens?• you or your colleagues are physically assaulted by citizens?• you personally or your colleagues or your relatives are threatened by citizens with considerable damage or with weapons?• you or your colleagues are attacked with weapons by citizens?• citizens instruct someone to threaten you or your colleagues?• citizens instruct someone to harm you or your colleagues (possibly with weapons)? <p>(1 = never, 2 = rather than once a year, 3 = once a year, 4 = several times a year, 5 = once a month, 6 = several times a month, 7 = once a week, 8 = several times a week, 9 = once a day, 10 = several times a day)</p> |

APPENDIX B: FoBIK coding procedure

| How often do you personally experience in your daily work that ... | Never | Rather than once a year | Once a year | Several times a year | Once a month | Several times a month | Once a week | Several times a week | Once a day | Several times a day |
|--|---------|-------------------------|-------------|----------------------|--------------|-----------------------|-------------|----------------------|------------|---------------------|
| 1 citizens visit the facility under the influence of alcohol or drugs? | Level 0 | | | | | | | | | |
| 2 citizens show little or no willingness to cooperate or refuse to talk to you or your colleagues? | | Level 1 | | | | | | | | |
| 3 citizens refuse to perform a certain behavior or to make telephone contact? | | | | | | | | | | |
| 4 citizens knowingly make unjustified complaints about you or your colleagues? | | | | | | | | | | |
| 5 citizens knowingly spread untrue facts about you or your colleagues? | | | | | | | | | | |
| 6 citizens are damaging property inside the building or your immediate environment? | | Level 2 | | | | | | | | |
| 7 citizens are damaging property in your office? | | | | | | | | | | |
| 8 you or your colleagues are subjected to verbal harassment by citizens? | | | | | | | | | | |
| 9 citizens threaten to harm themselves? | | Level 1 | | | | | | | | |
| 10 you, your colleagues or your relatives are verbally threatened by citizens? | | Level 2 | | | | | | | | |
| | | Level 3 | | | | | | | | |

| How often do you personally experience in your daily work that ... | Never | Rather than once a year | Once a year | Several times a year | Once a month | Several times a month | Once a week | Several times a week | Once a day | Several times a day |
|---|---------|-------------------------|-------------|----------------------|--------------|-----------------------|-------------|----------------------|------------|---------------------|
| 11 you or your colleagues are subjected to sexual harassment by citizens? | Level 2 | | | | | | | | | |
| 12 you or your colleagues are physically sexually harassed by citizens? | | | | | | | | | | |
| 13 you or your colleagues are physically assaulted by citizens? | | | | | | | | | | |
| 14 you personally or your colleagues or your relatives are threatened by citizens with considerable damage or with weapons? | Level 4 | | | | | | | | | |
| 15 you or your colleagues are attacked with weapons by citizens? | | | | | | | | | | |
| 16 citizens instruct someone to threaten you or your colleagues? | | | | | | | | | | |
| 17 citizens instruct someone to harm you or your colleagues (possibly with weapons)? | Level 4 | | | | | | | | | |

Note: Overall classification according to the highest level once assigned; Level 0 = no experiences of workplace aggression at all; Level 1 = controversial conversations; Level 2 = harassment, maladjusted social behaviors, and property damage; Level 3 = coercion, serious threats, physical assault; Level 4 = use of weapons or tools as weapons.

APPENDIX C: Correlations

| Variable | 1 | 2a | 2b | 2c | 2d | 2e | 3 | 4 | 5 | 6 | 7 | 8a | 8b | 8c | 8d | 9 | 10 |
|--|---------------------|-----------------------|--------|-----------------------|-----------------------|--------|-----------------------|-----------------------|----------------------|--------|----------------------|-----------------------|-----------------------|-----------------------|--------------------|-------|----|
| 1 Emotional valence of associations with citizens ^a | 1.000 | | | | | | | | | | | | | | | | |
| Workplace aggression | | | | | | | | | | | | | | | | | |
| 2a No workplace aggression | 0.115 | 1.000 | | | | | | | | | | | | | | | |
| 2b Controversial conversations | -0.005 | -0.061 | 1.000 | | | | | | | | | | | | | | |
| 2c Harassment/property damage | 0.131 | -0.183 ^{**} | -0.076 | 1.000 | | | | | | | | | | | | | |
| 2d Threats/physical assault | -0.161 [*] | -0.301 ^{***} | -0.125 | -0.376 ^{***} | 1.000 | | | | | | | | | | | | |
| 2e Weapons/tools | -0.024 | -0.238 ^{**} | -0.099 | -0.298 ^{***} | -0.490 ^{***} | 1.000 | | | | | | | | | | | |
| 3 Age | -0.003 | -0.046 | -0.005 | 0.046 | -0.044 | 0.044 | 1.000 | | | | | | | | | | |
| 4 Gender ^b | -0.002 | -0.012 | -0.049 | -0.103 | 0.219 ^{**} | -0.122 | -0.246 ^{***} | 1.000 | | | | | | | | | |
| 5 University degree ^c | 0.081 | -0.026 | -0.030 | 0.005 | 0.028 | -0.005 | -0.035 | -0.038 | 1.000 | | | | | | | | |
| 6 Part-time contract ^d | -0.012 | 0.026 | -0.071 | 0.023 | 0.081 | -0.103 | -0.042 | 0.348 ^{***} | 0.031 | 1.000 | | | | | | | |
| 7 Tenure (in years) | -0.086 | -0.053 | 0.090 | -0.014 | -0.021 | 0.044 | 0.718 ^{***} | -0.304 ^{***} | -0.001 | -0.047 | 1.000 | | | | | | |
| Administrative level | | | | | | | | | | | | | | | | | |
| 8a Federal level | 0.098 | 0.026 | 0.014 | -0.045 | -0.081 | 0.103 | -0.019 | -0.154 [*] | -0.022 | -0.129 | 0.033 | 1.000 | | | | | |
| 8b State level | 0.057 | 0.036 | -0.123 | 0.069 | -0.072 | 0.033 | 0.225 ^{**} | -0.095 | 0.281 ^{***} | 0.005 | 0.156 [*] | -0.348 ^{***} | 1.000 | | | | |
| 8c Local level | -0.055 | -0.040 | 0.080 | -0.068 | 0.149 [*] | -0.100 | -0.183 ^{***} | 0.156 [*] | -0.228 ^{**} | 0.105 | -0.187 ^{**} | -0.334 ^{***} | -0.581 ^{***} | 1.000 | | | |
| 8d Social security admin. | -0.126 | -0.027 | 0.054 | 0.054 | -0.022 | -0.022 | -0.048 | 0.097 | -0.063 | -0.015 | 0.005 | -0.147 [*] | -0.257 ^{***} | -0.246 ^{***} | 1.000 | | |
| 9 Type of work ^e | -0.079 | 0.078 | 0.121 | 0.021 | -0.037 | -0.078 | -0.073 | 0.041 | 0.022 | 0.039 | -0.017 | -0.038 | -0.139 [*] | 0.064 | 0.171 [*] | 1.000 | |

| Variable | 1 | 2a | 2b | 2c | 2d | 2e | 3 | 4 | 5 | 6 | 7 | 8a | 8b | 8c | 8d | 9 | 10 |
|---|-------|-----------------------|--------|--------|--------------------|--------------------|--------|-------|---------------------|-------|--------|--------|--------|--------------------|--------|--------|-------|
| 10 Frequency of personal interaction with citizens ^f | 0.098 | -0.272 ^{***} | -0.078 | -0.130 | 0.150 [*] | 0.179 [*] | -0.011 | 0.061 | -0.139 [*] | 0.094 | -0.117 | -0.033 | -0.112 | 0.165 [*] | -0.042 | -0.113 | 1.000 |

Note: n = 204.

^a <0 = negative valence, >0 = positive valence.

^b 0 = male, 1 = female.

^c 0 = no, 1 = yes.

^d 0 = no, 1 = yes.

^e 0 = exclusively imposing obligations, 10 = exclusively granting benefits.

^f 1 = never, 2 = rather than once a week, 3 = once a week, 4 = several times a week, 5 = at least once a day.

^{*}p < 0.05.

^{**}p < 0.01.

^{***}p < 0.001.

APPENDIX D: Network of associations with citizens

