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Cop Culture and Democratic Resilience: Linking Ingroup Identity, Organizational Fairness, and Authoritarian Attitudes

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Abstract

This study examines how police ingroup identity relates to authoritarian attitudes and whether this relationship is associated with organizational fairness and relative deprivation. Based on survey data from 1632 employees of the German Federal Criminal Police Office (BKA), we find that ingroup identity is strongly and positively associated with authoritarian attitudes. At the same time, we identify a weaker indirect negative pathway: stronger ingroup identity is associated with higher perceptions of organizational fairness, which in turn are associated with lower levels of relative deprivation regarding income, prestige, career prospects, and management quality. This dual-pathway model contributes to police culture research by suggesting that professional identification may both reinforce and inhibit authoritarian tendencies, depending on organizational justice dynamics. Our findings challenge one-dimensional accounts of “toxic” police culture, highlight the relevance of organizational justice and deprivation in shaping ideological orientations, and extend social identity theory to specialized investigative police units. The results underline the need for organizational strategies that foster inclusive and reflexive forms of professional loyalty to strengthen democratic resilience within law enforcement.

Keywords: cop culture; identity dynamics; authoritarianism; group cohesion; social identity theory

JEL: D23, D63, H83, J45, Z13

1. When Cop Culture Becomes Toxic

A link between certain types of cop culture, i.e., (street) cop cultures—also described as canteen cultures or policing subcultures—and authoritarian attitudes among police employees and hostile behavior toward members of the public is well documented (Behr, 2022; Demirkol and Nalla, 2017; Groß et al., 2022; Gutschmidt and Vera, 2019; Hunold D, 2022; Wegner and Ellrich, 2022). Organizational research more generally suggests that strong collective identities can both stabilize coordination and performance and, under certain conditions, foster conflict, exclusion, and rigid boundary-drawing between groups. Based on social-psychological theories like Social Identity Theory (SIT), strong ingroup identity and ingroup-outgroup differentiation have been shown to be key ingredients of cop cultures that foster such “toxic” attitudes and behavior (e.g., Brown et al., 2019). At the same time, police employees do not uniformly subscribe to cop culture; the perceived burdensomeness of a particular employee’s work reality and their perception of the organizational environment may serve as key psychological mechanisms that help explain the observed variation in authoritarian attitudes.

Cop cultures can be understood as an important resource for reducing complexity and thus have a practical function within the framework of specific, particularly burdensome, police tasks, for example by helping to routinize

the handling of dangerous situations and protecting against (mental) overload. Accordingly, cop culture is oriented toward the everyday needs of police officers and (typically) has little in common with the official organizational models of police culture; that is, it does not adhere to the officially prescribed, idealized notions of policing as outlined in mission statements and regulations (Behr, 2022; Groß et al., 2022; Gutschmidt and Vera, 2019; Ménard and Arter, 2014). Thus, cop culture may be a resource that strengthens resilience, buffering stress and professional disillusionment.

However, whether such ingroup-oriented cultural formations ultimately foster professional resilience or tilt toward normatively problematic outcomes may depend on how burdensome everyday work is experienced by individual police employees and whether the organization itself is perceived to sufficiently regulate and compensate for these burdens.

While associations between cop culture and authoritarian attitudes are well established, what remains insufficiently specified are the social-psychological mechanisms that transmit this association—particularly the roles of perceived organizational fairness and relative deprivation. We focus on these two mechanisms because they capture how organizational experiences are associated with the motivational quality of social identification.



Perceived organizational fairness reflects the extent to which procedures and outcomes are experienced as legitimate and just, whereas relative deprivation here denotes a perceived gap between the importance an individual attaches to material work values—such as pay, career advancement, or prestige—and their actual realization. When fairness is low, identity-related needs for respect and belonging are frustrated; when deprivation is high, unmet expectations regarding material recognition evoke frustration, lack of social recognition and control loss. Both processes can heighten the appeal of authority and hierarchical order (Duckitt, 2001). Together, they may reflect the organisational conditions under which an in-group identity is more likely to be associated with resilience or authoritarian tendencies.

Recent reviews and meta-analyses confirm the central role of both fairness and deprivation in shaping employees' appraisals and reactions to their work environment (Colquitt et al., 2023; Wan et al., 2023; Adamovic, 2023). Complementary evidence from research on public and semi-public organizations shows that perceptions of procedural and distributive justice, as well as work-related values and recognition, are closely associated with employee commitment, compliance, and evaluative orientations (Brinck et al., 2023). Evidence from policing research likewise highlights the pivotal role of social identity (Chan et al., 2023). Taken together, these strands suggest that perceived fairness can mitigate, and perceived deprivation can amplify the threat perceptions and status anxieties that underpin authoritarian orientations (Duckitt, 2001). Clarifying this link helps explain variation in how ingroup cohesion relates to authoritarian tendencies within police cultures.

Building on this theoretical rationale, there remains a need for quantitative tests that integrate these mechanisms into a single explanatory model, especially in specialized investigative agencies (Wolfe and Lawson, 2020). In line with a mediational understanding, we conceptualize perceived organizational fairness and relative deprivation as process variables that are statistically associated with the relationship between ingroup identity and authoritarian attitudes rather than as contextual moderators.

Accordingly, the aim of this study is twofold: (1) to examine whether a strong cop ingroup identity is associated with authoritarian attitudes among employees of the Federal Criminal Police Office (BKA), and (2) to test whether this relationship is mediated by perceived organizational fairness and experiences of relative deprivation. Rather than theorizing moderation, we conceptualize fairness and deprivation as mediating mechanisms that help explain how ingroup identity and authoritarian attitudes are interrelated in the organizational context.

Guided by SIT and contemporary justice- and equity-based perspectives, we advance a process account in which perceived fairness operates as a proximal evaluation of treatment and procedures, shaping employees' sense of be-

ing valued and respected (Colquitt et al., 2023). This evaluation, in turn, informs outcome comparisons and perceptions of relative deprivation, as suggested by equity-based reasoning (Adamovic, 2023; Dong et al., 2023). By linking these processes to the development of authoritarian orientations, we therefore test a serial mediation model of associations in which ingroup identity is related to perceived fairness, perceived fairness is associated with relative deprivation, and perceived deprivation is related to authoritarian attitudes. Building on this theoretical framework, we then present empirical analyses to test the hypotheses.

2. Theory and State of Research: Cop Culture and Its Social Mechanisms

To clarify the social-psychological mechanisms underlying authoritarian attitudes among police employees, this section provides an in-depth discussion of the concepts of cop culture and ingroup identity, as well as an overview of the current state of research on their interrelation. Rather than treating cop culture as a monolithic explanatory variable, we focus on the affective dimension of ingroup identity as one of its core psychological components—particularly relevant in the context of specialized police organizations such as the BKA.

2.1 Social and Professional Identity – An Approach to the Social Psychological Mechanisms Behind Cop Culture

Questions about the social or professional identity of police employees are discussed almost exclusively in the literature on cop culture. However, the broader social psychological literature is often neglected. In the following, this literature will be discussed to identify links to cop culture and to organizational identity research more broadly, including work on identification, justice, and authority in public and professional organizations.

The Social Identity Theory (SIT) developed by Tajfel and Turner (1979; 1986) is one of the best-known theoretical concepts for the analysis of intergroup processes. According to this theory, group membership is a core component of the self-concept and thus an important aspect of self-esteem. The theory posits that members of a group form a social identity that leads them to prefer members of their own group (ingroup) over other groups (outgroup) in order to maintain a positive self-image (cf. Tajfel and Turner, 1979). While personal identity focuses on uniqueness and difference from other individuals, social identity refers to the convergence of individual behaviors, values and social norms (Wang and Yang, 2022).

The process of social identification is how individuals define and feel about a social group and how shared group membership influences their attitudes and behaviors. Self-Categorization Theory (Turner et al., 1987) explains how individuals perceive themselves as similar to their group and subsequently adopt its attributes or characteristics into their self-conception. This assimilation process is referred

to as self-stereotyping, which involves the depersonalization of self-concepts (Onorato and Turner, 2004). Although SCT assumes that people who deviate from group norms do not identify strongly with the group, research has shown that high identification and loyalty may persist even without full norm conformity (Crane and Platow, 2010). Thus, a second type of social identification has been proposed: self-anchoring (Cadinu and Rothbart, 1996), in which information about one's own self-concept is projected onto the ingroup. With the development of their Integrative Model of Social Identification (IMSI), Van Veelen et al. (2016) point to the possible coexistence of both cognitive pathways.

One manifestation of social identity is professional or organizational identity (du Plessis et al., 2021). The assumptions of SIT and SCT have been applied to the organizational context for decades (Ashforth and Mael, 1989; Hogg and Terry, 2001; Rovetta et al., 2025). Together, organizational identity and organizational identification have become two of the most important concepts in organizational research (He and Brown, 2013). Professional or organizational identity refers to shared collective norms and values; the rules based on these norms and values become collective meanings for the behavior of group members (Bay-erl et al., 2018). It changes through ongoing social learning and interaction but is nevertheless a relatively stable state that reflects individuals' willingness to define themselves as members of a particular organization (Wang and Yang, 2022). According to Weisman et al. (2022), it can be seen as the members' collective and shared sense of who they are as an organization in terms of the characteristics that are central, distinctive and enduring. Organizational identification is a form of social identification in which people see themselves as members of a social unit, the organization (Weisman et al., 2022). Organizational identification can be understood as an individual perception of the commonality of this organizational identity (Łupina-Wegener et al., 2015).

These theoretical perspectives highlight that group-based identification processes, especially affective ingroup identity defined by cohesion, solidarity, and loyalty—can strengthen conformity pressures and outgroup differentiation. This provides the conceptual basis for linking cop culture to authoritarian attitudes.

2.2 Cop Culture in Criminal Investigative Police: Concepts and Limitations in the Case of the BKA

The concept of *cop culture* refers to a framework of meaning within which practical police work takes place (Behr, 2022). It contrasts with *police culture* (organizational culture prescribed by leadership), which includes everything that is officially mandated by political and police leadership (laws, regulations, public guidelines). While police culture represents the idealized, publicly visible dimension of policing, cop culture reflects the lived, everyday practices of police employees (Gutschmidt and Vera, 2019). At this operational level, the formal demands of police cul-

ture are adapted into routines and practical knowledge, often diverging from official expectations (Behr, 2022; Derin and Singelstein, 2022).

Cop culture is also referred to as canteen culture or a policing subculture (Hesketh et al., 2017). From a broader organizational theory perspective, Schein's (2010) model of organizational culture offers a useful lens for understanding how cop culture manifests. According to Schein, culture operates on three levels: artifacts, espoused values, and underlying assumptions. Cop culture, in this view, reflects the deeper layer of informal, taken-for-granted assumptions that shape behavior and perceptions in police work—often diverging from formal mission statements and procedures. Police culture tends to refer to espoused values.

Classic studies on cop culture (e.g., Behr, 2022; Wathne, 2020; Workman-Stark, 2025) primarily examined street cop culture—a cultural system among frontline police employees dealing directly with crime and disorder. Workman-Stark (2025), also introduced a distinction between street cop culture and management cop culture, which is more prevalent in investigative and administrative units. This distinction is highly relevant for the BKA, where many employees work in investigative and analytical roles rather than on the street.

Despite these differences, cop culture remains an important concept for understanding the BKA. Although the BKA differs structurally from frontline police forces, it nevertheless exhibits patterns of cop culture—particularly team-based loyalties, nested identities, and defensive professional identities—making the concept useful when adapted to this context.

Training and Professional Socialization. BKA personnel undergo a three-year training program to become law enforcement officers (*Vollzugsbeamte*). This foundational socialization process instills police-specific norms, values, and professional identities like those found in other law enforcement agencies.

Strong Identification with Teams over Organizational Units. Research suggests that police employees often feel a stronger bond with their immediate work teams than with higher-level organizational structures (Workman-Stark, 2025). This is also observed within the BKA. An analysis of the data used in this paper shows that team loyalty often outweighs identification with broader hierarchical units such as departments or divisions. This is consistent with the concept of nested identities (NID), according to which identification with the team is often stronger than identification with the organization and correlates more strongly with specific outcomes of the working group (Rovetta et al., 2025). Such team-based identity formation or team identification is a central aspect of cop culture, as it fosters cohesion, solidarity, and a shared professional outlook.

Rule-Consciousness and Conformity. Legalistic values, particularly a strong inclination toward rule-following and procedural correctness, are deeply embed-

ded in the professional ethos of BKA personnel (Striebing et al., 2023). While these values align with police culture, they also contribute to the mechanisms of cop culture by reinforcing an internal normative system that prioritizes conformity and hierarchical order.

Operational Units with Exposure to Risk and Uncertainty. Although the majority of BKA employees are not engaged in frontline policing, the institution does include specialized operational units that conduct fieldwork in uncertain and potentially dangerous environments. These units operate under conditions that are conducive to the development of cop culture, particularly in terms of risk perception, occupational solidarity, and a defensive professional identity.

Given these factors, the concept of cop culture must be adapted, not discarded: although classic frontline models do not fully capture the BKA's reality, the agency nonetheless exhibits cultural patterns consistent with key aspects of cop culture.

2.3 Cop Culture and Authoritarian Attitudes

This study investigates whether a strong ingroup identity among police employees is associated with higher levels of authoritarian attitudes, and whether this relationship is mediated by organizational factors such as perceived fairness and individual experiences of deprivation. To better understand the psychological foundations of authoritarian attitudes in policing, we use cop culture as a theoretical frame and link it to social-psychological theories of social and professional identity. This linkage helps identify mechanisms through which group-based identification may foster authoritarian tendencies within police organizations.

For a long time, in psychology it was not clear how authoritarian attitudes could be linked to collective behavior and group identification. The Right-Wing Authoritarianism Scale (Altemeyer, 1981) measures authoritarian attitudes across three dimensions: conventionalism, authoritarian submission, and authoritarian aggression. While some scholars view authoritarianism as stable, a growing body of evidence shows it to be strongly shaped by contextual and organizational factors (Schnelle et al., 2021). This supports the assumption that authoritarian attitudes can be shaped by organizational characteristics that are part of cop culture.

Duckitt (1989) developed a link between SIT (Tajfel and Turner, 1986) and authoritarianism by conceptualizing it as a relationship between group and individual members, primarily determined by the intensity of identification and the resulting striving for cohesion. Strong ingroup identification is associated with demands for conformity (conventionalism), respect and obedience to authority (submission), and intolerance or punishment of norm violators (aggression). This link has been empirically supported (Groß et al., 2022; Schnelle et al., 2021). Research also shows that highly authoritarian individuals display stronger ingroup

bias and outgroup derogation, consistent with SIT (Heller et al., 2020; Stellmacher and Petzel, 2005).

Although some claim that isolation and solidarity among police have decreased (Behr, 2022), ingroup loyalty remains a central feature of police identity (Gutschmidt and Vera, 2019; Paoline, 2003). As loyalty is a central component of social identity, strong ingroup identification is expected to foster authoritarian attitudes.

Two explanatory models dominate the literature:

1. **Predisposition (selection effect):** policing attracts more authoritarian-conservative types (Groß et al., 2022; Kemme et al., 2021).

2. **Socialization (learning effect):** authoritarian attitudes are acquired “on the job” through professional experiences (e.g., Ashlock, 2019; Kemme et al., 2021).

Evidence suggests that authoritarianism and conservatism increase once trainees enter practical work environments (Clasen et al., 2024; Goncalves and Tuttle, 2024; Krott et al., 2018). This leads to our first hypothesis:

H1: Ingroup identity is positively associated with authoritarian attitudes.

To explain how cop ingroup identity may foster authoritarian attitudes, we conceptualize perceptions of fairness and deprivation as mediating mechanisms that translate social identification into evaluative and motivational processes. Strong identification with the police ingroup shapes how employees interpret organizational treatment: fair procedures and recognition signal respect and legitimacy, perceived shortfalls in material or symbolic rewards can undermine belonging and evoke perceptions of deprivation. These experiences of unmet expectations and frustration can, in turn, activate control motives and conformity needs that are central to authoritarian worldviews (Duckitt, 2001).

2.4 Organizational Mechanisms Behind Toxic Cop Cultures

Toxic dynamics within cop culture—characterized by collective identity and ingroup loyalty—emerge when organizational conditions structure these identifications in ways that promote authoritarian orientations or the devaluation of outgroups. The following section examines two primary mediating mechanisms: perceptions of (in)justice and (un)fairness, and experiences of (material) deprivation.

(a) Perceptions of organizational justice and fairness as protective factors against authoritarianism and group-focused enmity.

Perceptions of organizational justice are central to shaping identity and occupational attitudes. While most studies have focused on street-level officers, feelings of injustice also affect employees in investigative and administrative units. Perceived unfairness in promotions, resource allocation, or leadership decisions represents a mechanism through which organizational experiences shape authoritarian attitudes. Research indicates that organizational injustice in policing contexts contributes to outgroup de-

valuation (Groß et al., 2022). Recent reviews and meta-analyses show that fairness strongly shapes employee attitudes across organizations, including policing (Colquitt et al., 2023; Wolfe and Lawson, 2020; Adamovic, 2023). Fair interactions convey recognition and respect, whereas injustice undermines recognition, reduces performance, and increases stress (Semmer et al., 2019).

Importantly, perceptions of organizational fairness are not solely driven by objective procedural characteristics but are also shaped by processes of social identity and group belongingness. According to social identity perspectives, identification with an organization or occupational ingroup provides an interpretive lens that can bias how authority actions and organizational decisions are evaluated—ingroup authorities are more likely to be seen as legitimate and their actions as justified by highly identified members (Ashforth and Mael, 1989). At the same time, research on procedural justice suggests that experiences of inclusion and strong group belonging make individuals more sensitive to fairness signals, such that both fair and unfair procedures have stronger effects on fairness perceptions and attitudes under conditions of strong group inclusion (Colin Bolger and Walters, 2019; Tyler and Blader, 2003). This dual dynamic aligns with relational accounts of procedural justice, where fair treatment affirms group standing and unfair treatment threatens it, producing stronger affective and cognitive responses among highly identified members (Lind and Tyler, 1988; Tyler and Blader, 2003). In highly cohesive and hierarchical contexts such as policing, professional solidarity and loyalty may therefore both bias the interpretation of organizational actions in a favorable direction and amplify reactions to perceived unfairness—even when organizational practices are contested externally.

Taken together, organizational fairness perceptions connect organizational experiences with identity-based evaluations of authority by conveying recognition and shaping how decisions are interpreted within the ingroup. In policing contexts, this suggests that perceived organizational fairness constitutes a key pathway linking ingroup identification to authoritarian attitudes.

H2: Perceived organizational fairness mediates the relationship between ingroup identity and authoritarian attitudes.

(b) Experience of relative deprivation as a risk factor.

Relative deprivation arises when individuals perceive a gap between what they expect (income, prestige, career prospects) and what they experience. Both individual and collective deprivation have been linked to authoritarianism and xenophobia (Pettigrew et al., 2008; Pettigrew, 2016; Wan et al., 2023). In the BKA, such perceptions may stem from rigid career structures or unequal access to leadership.

Empirical evidence shows that higher procedural fairness reduces feelings of relative deprivation (Wan et al., 2023), reinforcing the theoretical view that perceived inequities function as a psychological pathway through which

fairness evaluations influence authoritarian orientations. At the same time, fairness perceptions may carry heterogeneous implications: while they can buffer deprivation-based grievances, they may also signal the legitimacy of existing authority structures. When such deprivation persists, it can undermine recognition and strengthen authoritarian or exclusionary attitudes (Groß et al., 2022).

H3: Individual experiences of relative deprivation mediate the relationship between perceived organizational fairness and authoritarian attitudes.

3. Method

The aim of this study is to examine the associations between ingroup identity, perceived organizational fairness, and relative deprivation with the dependent variable authoritarian attitudes and to test the corresponding hypotheses (H1–H3). In line with our theoretical framework, the results of these analyses lead us to examine serial mediation (group identity → fairness → deprivation → authoritarian attitudes), which we elaborate theoretically in the Results section (H4).

3.1 Sample

The data for testing the hypotheses were collected as part of a cross-sectional survey of employees of the Federal Criminal Police Office (*Bundeskriminalamt – BKA*) in Germany in September 2022. The Federal Criminal Police Office is a specialized police agency in Germany that operates on the federal level. Its main responsibilities are to act as an information and communication center of the German police, to investigate outstanding cases of international crime and to protect the members of the constitutional organs of the Federation (e.g., the chancellor). Consequently, there are no uniformed police in the Federal Criminal Police Office and interactions with citizens are much less frequent than in other police organizations. Furthermore, approximately half of its employees have a different professional background from policing. The conditions typically associated with cop culture therefore only partially apply to the Federal Criminal Police Office. However, while it is not typical for employees of the Federal Criminal Police Office to hold authoritarian attitudes, authoritarian attitudes can be found among a relevant minority of the BKA workforce. This makes the BKA suitable for testing variation in authoritarian attitudes as a function of identification and organizational mechanisms.

The survey was administered in German as an online questionnaire. Data were initially collected from $N_{\text{initial}} = 1843$ employees (22.7% of all 8,121 BKA employees). After planned quality checks and listwise deletion of cases with missing core measures, the final analytical sample comprised $N_{\text{final}} = 1632$ employees of the BKA. Post-stratification weights were applied to align the sample with BKA administrative distributions (gender, age groups, employment groups). While the response rate of 22.7% is

modest, it is not unusually low compared with recent large-scale police studies in Germany. The MEGAVO study, the largest German police study to date and thematically close to the present research, reported response rates of approximately 16% and 14% across its two survey waves (MEGAVO, 2024). The recent Hamburg police study on democracy-related attitudes and values reported a response rate of 18.1% (Clasen et al., 2024). At the same time, response rates in police surveys vary substantially by survey mode and design, and Nix et al. (2019) report considerably higher average response rates across the broader international police survey literature. We therefore treat non-response as a relevant limitation. While the use of post-stratification weights reduces potential distortions in the sample composition, it cannot rule out systematic non-response bias related to unobserved characteristics. In the final sample, 47.1% of the participants identified as women and 0.4% identified as diverse. To ensure data protection, age was categorized, with 22% of participants between 15 and 29, 28.6% between 30 and 39, 22.9% between 40 and 49, and 26.5% 50 or older. The employment group was divided into police officers (50.4%), administrative/technical/scientific or other civil servants (19.6%), and employees covered by collective bargaining agreements (29.6%). The study was conducted under BKA data protection regulations; all responses were anonymous, and participation was voluntary.

3.2 Procedure and Materials

The assessed variables were part of a larger survey project at the BKA. Additional variables, which are not part of the research questions outlined above were personal values, leadership behaviors, work satisfaction, organizational commitment and scales assessing the job design characteristics of employees. Hence, we used short scales to enhance the efficiency of the survey and reduce participant fatigue. Nevertheless, all used scales are based on studies supporting their validity in assessing the respective constructs.

Example items and corresponding answer scales are depicted in Table 1. A three-item short scale was used to assess authoritarian attitudes (Beierlein et al., 2014). We used four items to measure ingroup identity based on a scale of Jackson (2002). The construct of fairness was assessed using six items (Brom et al., 2015).

To assess deprivation, we referred to a work value scale which asked participants about their perceived importance of various aspects in their work context (Seifert and Bergmann, 1983; 8 items). According to Ros et al. (1999) work values are guiding principles which are hierarchically ordered according to their importance. They reflect the subjective importance of work-related goals and describe what a person expects from his or her work. Participants were asked how important each of the material-extrinsic work values was to them (income, management, prestige, career opportunities). Then each item was rated again to the re-

alization of one's work value at work. Here, we aimed at assessing the extent to which participants are able to fulfill the above work values in their work life. Based on the two different assessments, namely importance and realization of one's work values, a difference score was calculated. The items for assessing the reality of fulfilling one's work value were subtracted from the items which assessed expectations and aspirations. Hence, higher values indicate a greater deprivation, where what one expects from his or her work is higher and therefore not fulfilled by the specific work context (Kristof-Brown et al., 2023). Based on these individual differences, a deprivation index was calculated by using the mean score of the computed differences.

3.3 Analyses

The analysis was conducted using IBM SPSS Statistics for Windows, Version 26.0 (IBM Corp., Armonk, NY, USA) and R statistical software (R Core Team, R Foundation for Statistical Computing, Vienna, Austria; <https://www.R-project.org/>). The factorial validity of the used scales was analyzed with Confirmatory Factor Analysis (CFA; R-package: lavaan; estimator: MLR). Means were calculated based on the reported scales above.

Hierarchical multipleregressions were used to estimate the effects of ingroup identity, fairness and deprivation on authoritarian attitudes. Our goal is to understand the relative proportion of explained variance above the other variables included in the models. We included control variables for gender, age and leadership responsibilities based on previous empirical findings, which support the control of the respective variance (e.g., Heller et al., 2020). Standardized regression coefficients and their significance, as well as the change in the explained variance between the models will be evaluated. Prerequisites were tested according to Bühner and Ziegler (2009). Issues in the normality assumption of the dependent variable were addressed using bootstrapping (5000 iterations).

4. Results

Descriptive statistics and Pearson correlations of the variables are displayed in Table 2. For the models of the so-called overidentified variables, CFA were calculated (Kline, 2023). The CFA results indicate that the scales for deprivation and ingroup identity exhibited acceptable to excellent model fit values and showed acceptable psychometric properties for further analyses. However, the fairness scale showed poor model fit, suggesting that its latent structure does not adequately reflect the theoretical construct in this organizational context (CFA results for the scales of: Importance and realization of work values (deprivation): $\chi^2(76) = 393.44, p < 0.001, \chi^2/df = 5.18, CFI = 0.983, RMSEA = 0.045 [0.041, 0.049], SRMR = 0.017$; Authoritarian attitudes: n.a., just-identified; Ingroup identity: $\chi^2(8) = 58.60, df = 8, p < 0.001, \chi^2/df = 7.33, CFI = 0.957, RMSEA = 0.059 [0.046, 0.074], SRMR = 0.030$; Fairness: χ^2

Table 1. Assessed variables, wording and provided answer scale – item examples.

Variable (Scale)	Items	Exemplary item (German)	Exemplary item (English)	Answer scale
Ingroup Identity (Jackson, 2002)	4	Beim BKA können wir uns immer aufeinander verlassen.	Members of the ingroup can always count on each other.	1 (strongly disagree), 5 (fully agree)
Fairness (Brom et al., 2015)	6	Beim BKA werden die Ressourcen gerecht verteilt.	At BKA, resources are distributed fairly.	1 (strongly disagree), 5 (fully agree)
Deprivation (Seifert and Bergmann, 1983)				
Income	2	Viel Geld verdienen können.	Being able to earn a lot of money.	1 (not important), 5 (very important)
Management	2	In einer Führungsposition arbeiten.	Working in a leading position.	1 (not important), 5 (very important)
Prestige	2	Eine gesellschaftlich geachtete Stellung erreichen.	Achieving a socially respected position.	1 (does not apply at all), 5 (fully applies)
Career opportunities	2	Gelegenheiten bekommen, in höhere berufliche Positionen aufzusteigen.	Get opportunities to advance to higher professional positions.	1 (does not apply at all), 5 (fully applies)
Authoritarianism (Beierlein et al., 2014)	3	Menschen sollten wichtige Entscheidungen in der Gesellschaft Führungspersonen überlassen.	People should leave important decisions in society to leaders.	1 (strongly disagree), 5 (fully agree)

Note: Two fairness items were recoded as they indicated lower fairness given a higher scale rating, higher values of fairness indicate higher perceived fairness in structures and processes at the BKA.

Table 2. Means, standard deviations, and correlations with confidence intervals.

Variable	Internal consistencies	<i>M</i>	<i>SD</i>	1	2	3
1. Ingroup Identity	$\alpha = 0.63; \omega = 0.59$	3.58	0.59			
2. Fairness	$\alpha = 0.77; \omega = 0.85$	2.75	0.67	0.24** [0.19, 0.28]		
3. Deprivation	$\alpha = 0.73; \omega = 0.79$	0.19	0.84	-0.03 [-0.08, 0.01]	-0.26** [-0.30, -0.22]	
4. Authoritarianism	$\alpha = 0.58; \omega = 0.59$	2.53	0.73	0.19** [0.14, 0.23]	0.08** [0.03, 0.13]	0.06* [0.01, 0.11]

Note: * $p < 0.05$. ** $p < 0.01$.

(9) = 164.06, $p < 0.001$, $\chi^2/df = 18.23$, CFI = 0.929, RMSEA = 0.095 [0.084, 0.108], SRMR = 0.038). This may be due to the limited number of items or overlapping content between procedural and distributive dimensions. It is important to note that the fairness measure (Brom et al., 2015) is otherwise well established and validated; the weak fit in our study may therefore reflect a context-specific manifestation of fairness within the BKA—i.e., how fairness is cognitively represented and evaluated in this organization—rather than a general deficiency of the instrument. Consequently, caution is warranted when interpreting results involving the fairness scale, and future studies should consider revising or expanding its measurement model for police and security agencies in particular.

In addition, the internal consistencies of the authoritarianism ($\alpha = 0.58$) and ingroup identity ($\alpha = 0.63$) scales fall below the conventional 0.70 threshold (Table 2). However, coefficient alpha is known to underestimate reliabil-

ity for theoretically heterogeneous and context-dependent constructs (Trizano-Hermosilla and Alvarado, 2016; Dunn et al., 2014). In highly institutionalized and normatively dense organizational settings such as policing, constructs like authority, loyalty, and ingroup identity are not unitary traits but multidimensional meaning systems shaped by role expectations, hierarchy, and professional norms (Duckitt, 2001). Lower alpha values in this context therefore more plausibly reflect construct heterogeneity and context-bound meaning although measurement limitations cannot be ruled out. We therefore interpret effect sizes conservatively, focusing on the stability and direction of associations rather than on precise point estimates. Accordingly, the findings should be regarded as preliminary and interpreted with caution.

On average police employees in this survey do not (strongly) support authoritarian attitudes. They tend to not consider the organization as fair (or do at least lean towards

Table 3. Hierarchical linear regression to analyze hypothesized relations on authoritarianism.

Predictors	Model 1 ($R^2_{adjusted} = 0.05$)		Model 2 ($R^2_{adjusted} = 0.05$)		Model 3 ($R^2_{adjusted} = 0.07$)	
	β [95%-CI]	SE	β [95%-CI]	SE	β [95%-CI]	SE
Ingroup Identity	0.19*** [0.18; 0.30]	0.03	0.18*** [0.17; 0.29]	0.03	0.18*** [0.17; 0.29]	0.03
Fairness			0.04 [-0.01; 0.09]	0.03	0.05* [0.00; 0.11]	0.03
Deprivation					0.07** [0.02; 0.11]	0.02
Gender (male)	0.04 [-0.01; 0.13]	0.04	0.04 [-0.01; 0.13]	0.04	0.04 [-0.01; 0.13]	0.04
Age (30–39)	0.062* [0.00; 0.20]	0.05	0.06* [0.00; 0.20]	0.05	0.06* [0.00; 0.20]	0.05
Age (40–49)	0.1** [0.07; 0.28]	0.05	0.10** [0.06; 0.27]	0.05	0.10** [0.07; 0.28]	0.05
Age (>50)	0.077* [0.02; 0.23]	0.05	0.07* [0.02; 0.23]	0.05	0.08* [0.02; 0.23]	0.05
Management responsibility	-0.11*** [-0.25; -0.09]	0.04	-0.11*** [-0.26; -0.09]	0.04	-0.09*** [-0.24; -0.07]	0.04

Note. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

being undecided) and tend to display ingroup identity. As we can see in the bivariate correlations, stronger ingroup identity is associated with higher perceptions of fairness, which itself, in turn, significantly correlates with perceptions of deprivation in a negative way: police employees that perceive high fairness tend to perceive low deprivation, which is not very surprising. As expected, ingroup identity positively correlates with authoritarian attitudes in the bivariate analysis. Deprivation is not linked to ingroup identity in the bivariate context.

4.1 Hypotheses Tests

Hierarchical regressions (Table 3) were used to evaluate the hypotheses. As hypothesized (H1), ingroup identity was positively and significantly associated with authoritarian attitudes across all three models ($\beta_{\text{model1}} = 0.19, p < 0.001$; $\beta_{\text{model2}} = 0.18, p < 0.001$; $\beta_{\text{model3}} = 0.18, p < 0.001$). The inclusion of fairness in Model 2 did not improve explained variance, and fairness was not significantly associated with authoritarian attitudes ($\beta = 0.04, p = 0.131$). Thus, Hypothesis 2 was not supported. When deprivation was added in Model 3, both fairness and deprivation showed significant associations with authoritarian attitudes ($\beta_{\text{fairness}} = 0.05, p = 0.034$; $\beta_{\text{deprivation}} = 0.07, p = 0.005$). Importantly, the fairness effect was nonsignificant in Model 2 but turned positive and significant once deprivation was included in Model 3, consistent with a potential suppression pattern (Watson et al., 2013). In other words, the assumed positive link between fairness and authoritarianism might be partially masked by fairness's negative correlation with deprivation.

Taken together, H1 and H3 were supported, while H2 was rejected. Police employees with stronger ingroup identity and those perceiving deprivation within their organization tended to report more authoritarian attitudes, net of age, gender, and management position. The suppression finding suggests that fairness may play a more complex role than anticipated, simultaneously buffering deprivation while also covarying with authoritarian orientations. Such mechanisms cannot be fully captured by stepwise regressions and warrant further modeling.

4.2 Exploratory Analysis of Potential Indirect Effects

In light of this suppression effect, and separate from our a priori hypothesis tests (H1–H3), we formulated a post hoc exploratory hypothesis:

H4: The relationship between police ingroup identity and authoritarian attitudes is mediated by perceived organizational fairness and relative deprivation.

We specified H4 as a serial mediation model rather than parallel for two reasons. First, fairness captures employees' proximal evaluations of how they are treated within the organization, whereas deprivation reflects a more distal comparison between expected and realized work outcomes (income, prestige, advancement). Perceptions of being treated fairly are theorized to buffer against feelings of deprivation, while the reverse is less likely: feeling deprived does not necessarily imply that procedures or interactions are judged unfair. This sequencing is consistent with relational and equity-based models of justice (Colquitt et al., 2023; Pettigrew, 2016; Wan et al., 2023).

Second, our regression results pointed to a suppression effect: fairness was nonsignificant in Model 2 but

Table 4. Model of indirect effects of ingroup identity on authoritarianism mediated by fairness and deprivation.

Model	Predictor	β [95%-CI]	SE	R^2_{adjusted}
1 (DV: Fairness)	Ingroup Identity	0.27*** [0.21; 0.32]	0.03	0.05
2 (DV: Deprivation)	Ingroup Identity	0.02 [-0.05; 0.10]	0.04	0.07
	Fairness	-0.34*** [-0.40; -0.27]	0.03	
3 (DV: Authoritarianism)	Ingroup Identity	0.23*** [0.17; 0.29]	0.03	0.04
	Fairness	0.06 [-0.00; 0.11]	0.03	
	Deprivation	0.07** [0.03; 0.11]	0.02	

Note: Indirect effect of ingroup identity by fairness and deprivation on authoritarianism: -0.01 [-0.01; -0.002]; inclusion of control variables (age, gender and management responsibility) did not alter the results meaningfully; *** $p < 0.001$, ** $p < 0.01$; DV, Dependent variable.

became significant and positive once deprivation was included (Model 3). This shift suggested an intertwined relationship between fairness and deprivation that could not be disentangled with a parallel mediation model, which assumes independent pathways. A serial mediation approach allows us to explicitly test whether fairness is negatively associated with deprivation, which in turn is positively related to authoritarian attitudes.

To address this complexity, we conducted a supplementary exploratory mediation analysis using the PROCESS tool in SPSS (Hayes, 2018). Indirect effects were estimated with heteroscedasticity-consistent standard errors and 5000 bootstraps. Following Hayes (2018), mediation was considered supported if the bootstrapped confidence interval of the product of indirect paths did not include zero.

The results are shown in Table 4. H4 received empirical support. Ingroup identity significantly predicted fairness ($\beta = 0.27, p < 0.001$). In turn, fairness significantly reduced perceived deprivation ($\beta = -0.34, p < 0.001$), while the direct path from ingroup identity to deprivation was nonsignificant. Finally, deprivation significantly predicted authoritarian attitudes ($\beta = 0.07, p = 0.002$). The direct effect of ingroup identity on authoritarian attitudes remained significant ($\beta = 0.23, p < 0.001$), indicating partial mediation. The indirect effect via fairness and deprivation was small but significant (-0.01 [-0.01; -0.002]).

The data suggests the following pattern of associations (Fig. 1): employees with stronger ingroup identity tend to perceive the organization as treating them fairly; higher fairness perceptions are associated with lower deprivation; and reduced deprivation is associated with lower authoritarian attitudes. Ingroup identity thus exhibits two opposing relationships with authoritarian attitudes: a direct positive association and an indirect negative association via fairness and deprivation. The direct effect was the stronger one.

5. Discussion

The aim of our study was to examine whether a strong police ingroup identity is associated with authoritarian attitudes among employees of the Federal Criminal Police Office, and whether this relationship is mediated by percep-

tions of organizational fairness and experiences of deprivation. Drawing on the broader framework of cop culture, we tested the extent to which affective group identification—as a central dimension of professional police identity—relates to authoritarian orientations.

5.1 Interpretation of Results

Our results confirm that police employees with a strong affective ingroup identity report significantly higher levels of authoritarian attitudes (H1), in line with Duckitt's (1989) argument that authoritarian orientations reflect loyalty to the ingroup, a demand for cohesion, and adherence to group norms.

Furthermore, our findings support Hypothesis 3: police employees who perceive deprivation within their organization report higher levels of authoritarian attitudes, independent of age, gender, or leadership role. This aligns with research showing that group-based relative deprivation is linked to exclusionary attitudes (Pettigrew, 2016), while individual deprivation relates to psychological strain (Pettigrew et al., 2008; Wan et al., 2023). Although our operationalization of deprivation is individual-level, it may also tap perceptions of broader organizational recognition gaps, given that formal income and status hierarchies within the BKA are relatively standardized but can appear restrictive compared to other professions.

By contrast, Hypothesis 2 is not supported. Perceptions of fairness—covering promotion, participation, resource distribution, and leadership—are nonsignificant in the basic model and turn out to be positively (rather than negatively) related to authoritarianism once deprivation was controlled. This pattern contradicts the majority of justice research, where fairness typically functions as a protective factor (Colquitt et al., 2023).

To probe this unexpected result, we introduced Hypothesis 4, which posited a mediation effect via fairness and deprivation. The theoretically plausible serial mediation model is supported: ingroup identity is positively associated with fairness, which in turn is related to lower deprivation and thereby lower authoritarianism. However, this indirect pathway was small in magnitude and did not offset the stronger positive direct association between in-

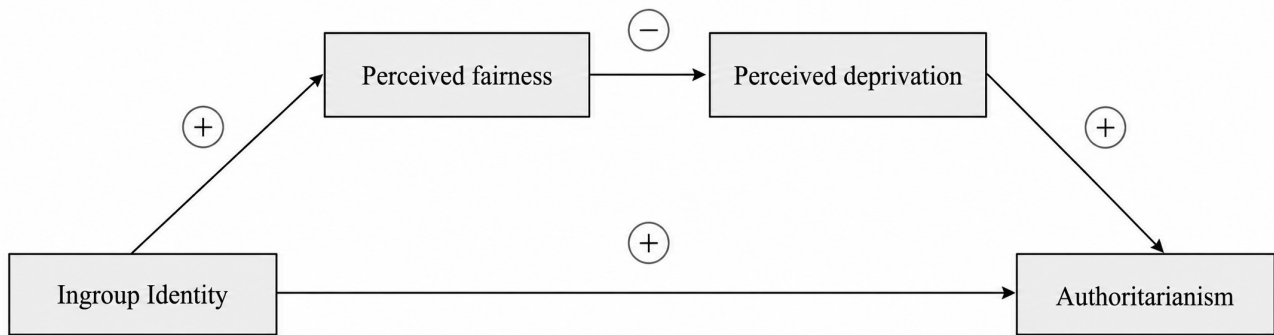


Fig. 1. Mediation model of exploratory analysis with indirect effects of ingroup identity on authoritarianism via fairness and deprivation.

group identity and authoritarian attitudes, highlighting the suppression dynamics suggested by the regression results.

Taken together, these findings point to a dual role of organizational fairness. While fairness is indirectly associated with lower authoritarian attitudes via lower deprivation by reducing experiences of deprivation, it may simultaneously function as an identity-based evaluation of legitimate authority, particularly among highly identified group members. In such contexts, perceptions of fairness may coexist with—or even reinforce—authoritarian orientations, helping to explain both the positive fairness–authoritarianism association and the suppression effects observed in the models.

Overall, our findings indicate that authoritarian attitudes among police employees appear to be more closely associated with identity-related dynamics than with fairness or deprivation alone. While ingroup identity showed a robust direct association with authoritarianism, organizational fairness and deprivation operated in a more complex and interdependent manner, simultaneously buffering deprivation and legitimizing authority. These results point to a layered mechanism in which affective professional identification covaries with authoritarian orientations, while organizational perceptions can both mitigate and reinforce these tendencies.

5.2 Theoretical Contributions

First, we position our findings explicitly against the prevailing evidence base, which largely reports a positive link between cop culture (including strong ingroup ties) and exclusionary or authoritarian orientations (see literature summarized in the Introduction). Our results refine this picture by offering a dual-pathway account: ingroup identity shows a direct positive association with authoritarian attitudes (H1), yet it is also indirectly negative via higher perceived fairness and lower relative deprivation (H4, partial mediation, small magnitude). This opposition of paths helps explain why prior studies, typically estimat-

ing only direct or bivariate effects, tended to portray cop culture as uniformly “toxic”. By modeling fairness and deprivation jointly, we suggest that the same identity dynamic can simultaneously reinforce and mitigate authoritarian tendencies, depending on its organizational embedding. The contribution is therefore not a blanket reversal but a mechanism-based differentiation that moves beyond dichotomies of “toxic” vs. “protective” cop cultures.

Second, we extend theorizing on cop culture beyond street-level policing to a specialized investigative setting (the BKA). Where prior theorizing often attributes authoritarianism to field exposure and high-conflict encounters, our results indicate that identity processes remain consequential even in low-contact, high-autonomy environments. This may extend current discussions of cop culture by showing that affective ingroup identity and nested team/organizational identifications operate as relevant levers in administrative and analytical units, not only in frontline patrol contexts.

Third, we integrate Social Identity Theory with organizational justice and relative deprivation perspectives into a coherent process model. Specifically, we theorize—and find exploratory support for—the sequence ingroup identity → fairness (proximal treatment appraisal) → deprivation (outcome comparison) → authoritarian attitudes. This serial pathway clarifies how recognition-signaling fairness can dampen deprivation-based grievance even as identity simultaneously strengthens authority-affirming orientations. Theoretically, this helps reconcile mixed findings by specifying when fairness functions as a buffer (indirect, negative path) and when identity amplifies authoritarianism (direct, positive path).

Finally, our findings identify a theoretically meaningful suppression pattern (fairness becomes positively significant once deprivation is modeled), which cautions against interpreting fairness as a uniformly protective factor. Instead, fairness appears ambivalent: it may reduce deprivation while also co-varying with system-loyal, conformity-

oriented attitudes in high-identification contexts. Recognizing this ambivalence adds precision to current debates and suggests boundary conditions for justice-based interventions.

Together, these contributions highlight that the relationship between cop culture and authoritarianism is not merely descriptive or structural—it is shaped by dynamic, context-dependent identity processes that can foster either democratic resilience or authoritarian closure. Understanding these dual potentials is essential for developing targeted organizational interventions.

5.3 Management Implications

The findings indicate that authoritarian tendencies among police officers appear to be most strongly associated with a pronounced ingroup identification. While this identification is related to perceptions of fairness, it may also directly co-vary with authoritarian attitudes. Our mediation analysis further suggests that fairness and deprivation act as partial psychological mechanisms, but their effects are comparatively weak. This implies that authoritarianism is not primarily driven by evaluations of organizational justice or material disadvantage, but by deeper identity dynamics within police organization.

These insights have tentative but direct practical relevance: training efforts and leadership development within police forces may benefit from focusing on weakening group cohesion, but on fostering forms of ingroup identity that are reflexive, inclusive, and democratically grounded. Similar to the idea of democratic policing — which conceptualizes the police as constitutionally accountable agents committed to rule of law, rights protection, and public trust — such an approach integrates professional pride with broader democratic commitments (Munthing and Faull, 2021).

Leadership plays a crucial role in modelling and legitimizing this reflexive form of belonging. Training curricula, mentoring programs, and feedback mechanisms should therefore explicitly address group norms, value orientations, and the dangers of defensive solidarity mechanisms. Although strengthening fairness perceptions and addressing latent deprivation dynamics remain relevant, they should be understood as supporting conditions within a broader cultural transformation strategy that centers democratic identity work, and their applicability may vary across organizational contexts.

5.4 Limitations of the Study and Future Research

Several limitations of our data must be acknowledged, which constrain the interpretation of our findings and point to directions for future research. The most important limitation is the use of cross-sectional survey data, which does not allow causal inferences. Furthermore, the analyses do not account for important potential confounding variables, such as political ideology, threat perception, dispositional

conservatism and occupational stress. Consequently, the observed associations cannot be interpreted as the sole effect of professional ingroup identity. Longitudinal or experimental designs would be better suited to capture socialization processes and contextual influences in police culture (cf. Krott et al., 2018).

A second limitation concerns measurement reliability. The internal consistencies of the authoritarian attitudes and ingroup identity scales fall below the conventional threshold. Although short scales are widely used in large organizational surveys to reduce respondent burden, lower reliability may attenuate observed associations and thus calls for cautious interpretation of effect sizes. In addition, in normatively dense organizational contexts such as policing, constructs like authority, loyalty, and professional identification may exhibit substantive heterogeneity across roles and units, which can further limit internal consistency. Future studies should therefore replicate and extend our findings using longer and more fine-grained instruments that allow a more differentiated assessment of these constructs (e.g., Beierlein et al., 2014; Jackson, 2002; Miscenko and Day, 2016).

Additionally, the results of the CFA suggest that fairness perception may not have been adequately assessed in this study. Consequently, any conclusions drawn in this regard should be viewed as preliminary and require further validation through refined measurement approaches. While the fairness scale we employed is well-established and validated in prior studies (Brom et al., 2015), its weak model fit in our data indicates that the construct may take a context-specific form within the BKA, where fairness judgments are embedded in distinctive hierarchies, professional norms, and security logics. This suggests a substantive rather than purely psychometric explanation of the misfit.

We also acknowledge that our operationalization of cop culture through ingroup identity captures only one dimension of a broader and multidimensional construct (Jackson, 2002; Miscenko and Day, 2016). While this aligns with central assumptions in the literature (Chan et al., 2023; Yesberg et al., 2024), we acknowledge that it does not capture occupational subculture in a broader sense, including informal norms, narratives, and routines. Thus, our results speak to a substantial specific facet of police identity, rather than substantiating claims about cop culture as a whole. Additional qualitative research building on our results may grasp cop culture in a more pronounced way. In short, our operationalization captures only one facet of cop culture and should not be equated with the full construct, which remains more heterogeneous and multifaceted than our measures could reflect.

Finally, cop culture itself is a heterogeneous and evolving construct. Classic models developed in the 1970s and 1980s (e.g., Paoline, 2003) may not reflect contemporary police organizations, which are marked by diversification and multiple, sometimes contradictory, identities (Clasen et al., 2024; Ingram et al., 2018). Job stressors such

as emotional demands, threats to personal safety, or political oversight remain crucial (Groß et al., 2022), but their interaction with professional identity requires further theorizing (Workman-Stark, 2025).

In sum, while our findings suggest that perceived deprivation and fairness provide some explanatory leverage for the link between police ingroup identity and authoritarian attitudes, their explanatory power is modest. Future research should expand on these insights by examining additional organizational mechanisms and testing whether democratic resilience is better strengthened through material interventions (e.g., reducing deprivation, improving fairness) or normative measures (e.g., empathy training, democracy education, anti-racism workshops). Moreover, ingroup identity, conceptualized as a proxy for cop culture in this paper, should also be tested in other organizations with regard to its effects on authoritarian attitudes. This applies, for example, to fire departments and, in contrast, to business enterprises. Such comparisons would help to find out more about the specific contexts that may influence authoritarianism in interplay with ingroup identity, as well as about the specific organizational cultures.

Abbreviations

BKA, Bundeskriminalamt; SEM, structural equation modeling; CFA, confirmatory factor analysis; SIT, social identity theory; SCT, self-categorization theory; RWA, right-wing authoritarianism; IMSI, integrative model of social identification; DV, dependent variable; CI, confidence interval.

Availability of Data and Materials

All data reported in this paper will be shared by the corresponding author upon reasonable request.

Author Contributions

CS, EG, SK, and JH designed the research study. CS performed the research, analyzed the data, and drafted the manuscript. All authors contributed to critical revision of the manuscript for important intellectual content. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

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Conflicts of Interest

The authors declare no conflicts of interest.

Declaration of AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work the authors used ChatGPT-3.5 in order to check spell and grammar. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

References

- Adamovic M. Organizational justice research: A review, synthesis, and research agenda. *European Management Review*. 2023; 20: 762–782. <https://doi.org/10.1111/emre.12564>
- Altemeyer B. *Right Wing Authoritarianism*. University of Manitoba Press: Winnipeg. 1981.
- Ashforth BE, Mael F. Social Identity Theory and the Organization. *The Academy of Management Review*. 1989; 14: 20. <https://doi.org/10.2307/258189>
- Ashlock JM. Gender attitudes of police officers: Selection and socialization mechanisms in the life course. *Social Science Research*. 2019; 79: 71–84. <https://doi.org/10.1016/j.ssresearch.2018.12.008>
- Bayerl PS, Horton KE, Jacobs G. How do we describe our professional selves? Investigating collective identity configurations across professions. *Journal of Vocational Behavior*. 2018; 107: 168–181. <https://doi.org/10.1016/j.jvb.2018.04.006>
- Behr R. „Polizeigewalt hat es nicht gegeben“ – Cop Culture als Disposition für Dominanz, Überlegenheit und Grenzüberschreitung im polizeilichen Alltagshandeln. *Rassismus in Der Polizei*. 2022; 217–238. https://doi.org/10.1007/978-3-658-37133-3_11 (In German)
- Beierlein C, Asbrock F, Kauff M, Schmidt P. *Kurzskala Autoritarismus (KSA-3) [German short scale]*. GESIS – Leibniz Institute for the Social Sciences. 2014.
- Bühner M, Ziegler M. *Statistik für Psychologen und Sozialwissenschaftler*. Pearson Studium: München. 2009. (In German)
- Brinck KL, Moll T, Siebert W. Altruistic Work Values’ Relevance for Organisational Commitment in Germany. *Management Revue*. 2023; 34: 277–304. <https://doi.org/10.5771/0935-9915-2023-3-277>
- Brom SS, Buruck G, Horváth I, Richter P, Leiter MP. Areas of worklife as predictors of occupational health – A validation study in two German samples. *Burnout Research*. 2015; 2: 60–70. <https://doi.org/10.1016/j.burn.2015.05.001>
- Brown J, Fleming J, Silvestri M, Linton K, Gouseti I. Implications of police occupational culture in discriminatory experiences of senior women in police forces in England and Wales. *Policing and Society*. 2019; 29: 121–136. <https://doi.org/10.1080/10439463.2018.1540618>
- Cadinu MR, Rothbart M. Self-anchoring and differentiation processes in the minimal group setting. *Journal of Personality*

- and Social Psychology. 1996; 70: 661–677. <https://doi.org/10.1037//0022-3514.70.4.661>
- Chan A, Bradford B, Stott C. A systematic review and meta-analysis of procedural justice and legitimacy in policing: the effect of social identity and social contexts. *Journal of Experimental Criminology*. 2023; 21: 349–406. <https://doi.org/10.1007/s11292-023-09595-5>
- Clasen J, Groß E, Häfele J, Kammigan I, Kemme S, Nickel A, et al. Demokratiebezogene Einstellungen und Werthaltungen in der Polizei Hamburg (DeWePol): Erste Befunde aus Befragungswelle 1 (Forschungsbericht). Hamburg. 2024. <https://doi.org/10.13140/RG.2.2.33834.32965> (In German)
- Colin Bolger P, Walters GD. The relationship between police procedural justice, police legitimacy, and people’s willingness to cooperate with law enforcement: A meta-analysis. *Journal of Criminal Justice*. 2019; 60: 93–99. <https://doi.org/10.1016/j.jcrimjus.2019.01.001>
- Colquitt JA, Hill ET, De Cremer D. Forever focused on fairness: 75 years of organizational justice in *Personnel Psychology*. *Personnel Psychology*. 2023; 76: 413–435. <https://doi.org/10.1111/peps.12556>
- Crane MF, Platow MJ. Deviance as adherence to injunctive group norms: the overlooked role of social identification in deviance. *The British Journal of Social Psychology*. 2010; 49: 827–847. <https://doi.org/10.1348/014466609X481416>
- Demirkol IC, Nalla MK. How does police culture shape officers’ support for community policing? *Policing and Society*. 2017; 29: 692–705. <https://doi.org/10.1080/10439463.2017.1410149>
- Derin B, Singelstein T. *Die Polizei: Helfer, Gegner, Staatsgewalt*. Ullstein Buchverlage: Berlin. 2022. (In German)
- Dong Y, Zhang L, Wang HJ, Jiang J. Why is crafting the job associated with less prosocial reactions and more social undermining? The role of feelings of relative deprivation and zero-sum mindset. *Journal of Business Ethics*. 2023; 184: 175–190. <https://doi.org/10.1007/s10551-022-05093-2>
- du Plessis C, Winterbotham S, Fein EC, Brownlow C, du Preez J, McKenna B, et al. I’m Still in the Blue Family: Gender and Professional Identity Construction in Police Officers. *Journal of Police and Criminal Psychology*. 2021; 36: 386–396. <https://doi.org/10.1007/s11896-020-09397-9>
- Duckitt J. A dual-process cognitive-motivational theory of ideology and prejudice. *Advances in Experimental Social Psychology*. 2001; 41–113. [https://doi.org/10.1016/s0065-2601\(01\)80004-6](https://doi.org/10.1016/s0065-2601(01)80004-6)
- Duckitt J. Authoritarianism and Group Identification: A New View of an Old Construct. *Political Psychology*. 1989; 10: 63. <https://doi.org/10.2307/3791588>
- Dunn TJ, Baguley T, Brunson V. From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*. 2014; 105: 399–412. <https://doi.org/10.1111/bjop.12046>
- Goncalves F, Tuttle C. *Police Work and Political Identity**. Los Angeles; Austin: University of California; University of Texas at Austin. 2024.
- Groß E, Clasen J, Zick A. Ursachen und Präventionsmöglichkeiten bei Vorurteilen und Diskriminierungen in der Polizei: Zur Relevanz des Syndroms der gruppenbezogenen Menschenfeindlichkeit für die Analyse, Prävention und Intervention in Polizeiforschung und-arbeit. In Hunold D, Singelstein T (eds.) *Rassismus in der Polizei: eine wissenschaftliche Bestandsaufnahme* (pp. 145–179). Springer VS: Berlin. 2022. (In German)
- Gutschmidt D, Vera A. Cop Culture und Gruppenbezogene Menschenfeindlichkeit in der Polizei: eine empirische Analyse. In Groß H, Schmidt P (eds.) *Empirische Polizeiforschung XXIII: Polizei und Migration* (pp. 227–250). Verlag für Polizeiwissenschaft: Frankfurt am Main. 2019. (In German)
- Hayes AF. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (Methodology in the Social Sciences). 2nd edn. The Guilford Press: New York, NY. 2018.
- He H, Brown AD. Organizational Identity and Organizational Identification. *Group & Organization Management*. 2013; 38: 3–35. <https://doi.org/10.1177/1059601112473815>
- Heller A, Decker O, Schmalbach B, Beutel M, Fegert JM, Brähler E, et al. Detecting Authoritarianism Efficiently: Psychometric Properties of the Screening Instrument Authoritarianism - Ultra Short (A-US) in a German Representative Sample. *Frontiers in Psychology*. 2020; 11: 533863. <https://doi.org/10.3389/fpsyg.2020.533863>
- Hesketh I, Williams E. A New Canteen Culture: The Potential to Use Social Media as Evidence in Policing. *Policing: a Journal of Policy and Practice*. 2017; 11: 346–355. <https://doi.org/10.1093/police/pax025>
- Hogg MA, Terry DJ. *Social identity process in organisational contexts*. Psychology Press: Philadelphia, PA. 2001.
- Hunold D. Rassistische Praktiken bei der Schutz- und Kriminalpolizei – Die Bedeutung der polizeilichen Felder für die Konstruktion von Tatverdächtigen. In Hunold D, Singelstein T (eds.) *Rassismus und Diskriminierung in der polizeilichen Praxis. Eine Bestandsaufnahme* (pp. 269–291). Springer: Wiesbaden. 2022. (In German)
- INGRAM JR, TERRILL W, PAOLINE EA. POLICE CULTURE AND OFFICER BEHAVIOR: APPLICATION OF A MULTILEVEL FRAMEWORK. *Criminology*. 2018; 56: 780–811. <https://doi.org/10.1111/1745-9125.12192>
- Jackson JW. Intergroup Attitudes as a Function of Different Dimensions of Group Identification and Perceived Intergroup Conflict. *Self and Identity*. 2002; 1: 11–33. <https://doi.org/10.1080/152988602317232777>
- Kemme S, Hanslmaier M, Abdul-Rahman L. Effects of selection and socialization within the police force on officers’ attitudes toward punishment and authoritarianism: a comparison between police students and the general population. *Police Practice and Research*. 2021; 22: 1718–1738. <https://doi.org/10.1080/15614263.2021.1921582>
- Kline RB. *Principles and practice of structural equation modeling*. Guilford Publications: New York. 2023.
- Kristof-Brown A, Schneider B, Su R. *Person-organization fit*

- theory and research: Conundrums, conclusions, and calls to action. *Personnel Psychology*. 2023; 76: 375–412. <https://doi.org/10.1111/peps.12581>
- Krott NR, Krott E, Zeitner I. Xenophobic attitudes in German police officers. *International Journal of Police Science & Management*. 2018; 20: 174–184. <https://doi.org/10.1177/1461355718788373>
- Lind EA, Tyler TR. *The Social Psychology of Procedural Justice*. Plenum Press: New York. 1988. <https://doi.org/10.1007/978-1-4899-2115-4>
- MEGAVO. MEGAVO-Studie: Projektbericht 2021–2024. Münster: Deutsche Hochschule der Polizei. 2024. Available at: https://www.polizeistudie.de/wp-content/uploads/Abschlussbericht_MEGAVO.pdf (Accessed: 20 May 2025) (In German)
- Miscenko D, Day DV. Identity and identification at work. *Organizational Psychology Review*. 2016; 6: 215–247. <https://doi.org/10.1177/2041386615584009>
- Ménard KS, Arter ML. Stress, Coping, Alcohol Use, and Posttraumatic Stress Disorder Among an International Sample of Police Officers: Does Gender Matter? *Police Quarterly*. 2014; 17: 307–327. <https://doi.org/10.1177/1098611114548097>
- Muntingh L, Faull A, Redpath J, Petersen K. Democratic policing: a conceptual framework. *Law, Democracy and Development*. 2021; 25. <https://doi.org/10.17159/2077-4907/2021/ld.d.v25.5>
- Nix J, Pickett JT, Baek H, Alpert GP. Police research, officer surveys, and response rates. *Policing and Society*. 2019; 29: 530–550. <https://doi.org/10.1080/10439463.2017.1394300>
- Onorato RS, Turner JC. Fluidity in the self-concept: the shift from personal to social identity. *European Journal of Social Psychology*. 2004; 34: 257–278. <https://doi.org/10.1002/ejsp.195>
- Paoline EA III. Taking stock: Toward a richer understanding of police culture. *Journal of Criminal Justice*. 2003; 31: 199–214. [https://doi.org/10.1016/S0047-2352\(03\)00002-3](https://doi.org/10.1016/S0047-2352(03)00002-3)
- Pettigrew TF, Christ O, Wagner U, Meertens RW, Van Dick R, Zick A. Relative Deprivation and Intergroup Prejudice. *Journal of Social Issues*. 2008; 64: 385–401. <https://doi.org/10.1111/j.1540-4560.2008.00567.x>
- Pettigrew TF. In Pursuit of Three Theories: Authoritarianism, Relative Deprivation, and Intergroup Contact. *Annual Review of Psychology*. 2016; 67: 1–21. <https://doi.org/10.1146/annurev-psych-122414-033327>
- Ros M, Schwartz SH, Surkiss S. Basic Individual Values, Work Values, and the Meaning of Work. *Applied Psychology*. 1999; 48: 49–71. <https://doi.org/10.1111/j.1464-0597.1999.tb00048.x>
- Rovetta A, Bortolotti A, Palumbo R. Integrating team and organizational identity: a systematic literature analysis. *Frontiers in Organizational Psychology*. 2025; 2. <https://doi.org/10.3389/forp.2024.1439269>
- Schein EH. *Organizational culture and leadership*. 4th edn. Jossey-Bass: San Francisco, CA. 2010.
- Schnelle C, Baier D, Hadjar A, Boehnke K. Authoritarianism Beyond Disposition: A Literature Review of Research on Contextual Antecedents. *Frontiers in Psychology*. 2021; 12: 676093. <https://doi.org/10.3389/fpsyg.2021.676093>
- Seifert KH, Bergmann C. Deutschsprachige Adaptation des Work Values Inventory von Super. *Psychologie und Praxis. Zeitschrift für Arbeits- und Organisationspsychologie*. 1983; 1: 160–172. (In German)
- Semmer NK, Tschan F, Jacobshagen N, Beehr TA, Elfering A, Kälin W, et al. Stress as Offense to Self: a Promising Approach Comes of Age. *Occupational Health Science*. 2019; 3: 205–238. <https://doi.org/10.1007/s41542-019-00041-5>
- Stellmacher J, Petzel T. Authoritarianism as a Group Phenomenon. *Political Psychology*. 2005; 26: 245–274. <https://doi.org/10.1111/j.1467-9221.2005.00417.x>
- Striebing C, Schneider J, Maier MJ, Loos S, Hochfeld K. Werthaltungen und wertbezogene Erwartungen der Mitarbeiter/-innen des BKA. *Fraunhofer IAO: Stuttgart*. 2023. <https://doi.org/10.24406/publica-1751> (In German)
- Tajfel H, Turner JC. An integrative theory of intergroup conflict. In Austin WG, Worchel S (eds.) *The social psychology of intergroup relations* (pp. 33–47). Brooks Cole: Monterey, CA. 1979.
- Tajfel H, Turner JC. *The Social Identity Theory of Intergroup Behavior*. In Worchel S, Austin WG (eds.) *Psychology of Intergroup Relation* (pp. 7–24). Hall Publishers: Chicago. 1986.
- Trizano-Hermosilla I, Alvarado JM. Best Alternatives to Cronbach’s Alpha Reliability in Realistic Conditions: Congeneric and Asymmetrical Measurements. *Frontiers in Psychology*. 2016; 7: 769. <https://doi.org/10.3389/fpsyg.2016.00769>
- Turner JC, Hogg MA, Oakes PJ, Reicher SD, Wetherell MS. *Rediscovering the social group: A self-categorization theory*. Basil Blackwell: Cambridge, MA. 1987.
- Tyler TR, Blader SL. The group engagement model: procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review: an Official Journal of the Society for Personality and Social Psychology, Inc.* 2003; 7: 349–361. https://doi.org/10.1207/S15327957PSPR0704_07
- Lupina-Wegener A, Schneider SC, van Dick R. The Role of Outgroups in Constructing a Shared Identity: A Longitudinal Study of a Subsidiary Merger in Mexico. *Management International Review*. 2015; 55: 677–705. <https://doi.org/10.1007/s11575-015-0247-6>
- van Veelen R, Otten S, Cadinu M, Hansen N. An Integrative Model of Social Identification: Self-Stereotyping and Self-Anchoring as Two Cognitive Pathways. *Personality and Social Psychology Review: an Official Journal of the Society for Personality and Social Psychology, Inc.* 2016; 20: 3–26. <https://doi.org/10.1177/1088868315576642>
- Wan J, Qin M, Zhou W, Zhou H, Li P. Procedural justice, relative deprivation, and intra-team knowledge sharing: The moderating role of group identification. *Frontiers in Psychology*. 2023; 14: 994020. <https://doi.org/10.3389/fpsyg.2023.994020>

- Wang Y, Yang D. Analysis of the Impact Mechanism of Occupational Identity on Occupational Well-Being Based on Big Data. *Computational and Mathematical Methods in Medicine*. 2022; 2022: 4870296. <https://doi.org/10.1155/2022/4870296>
- Wathne CT. New Public Management and the Police Profession at Play. *Criminal Justice Ethics*. 2020; 39: 1–22. <https://doi.org/10.1080/0731129x.2020.1746106>
- Watson D, Clark LA, Chmielewski M, Kotov R. The value of suppressor effects in explicating the construct validity of symptom measures. *Psychological Assessment*. 2013; 25: 929–941. <https://doi.org/10.1037/a0032781>
- Wegner M, Ellrich K. Rassistische Einstellungen von Polizeibeamt: innen. In Hunold D, Singelnstein T (eds.) *Rassismus in der Polizei: eine wissenschaftliche Bestandsaufnahme* (pp.107–126). Springer VS: Wiesbaden. 2022. https://doi.org/10.1007/978-3-658-37133-3_6
- Weisman H, Wu CH, Yoshikawa K, Lee HJ. Antecedents of Organizational Identification: A Review and Agenda for Future Research. *Journal of Management*. 2022; 49: 2030–2061. <https://doi.org/10.1177/01492063221140049>
- Wolfe SE, Lawson SG. The organizational justice effect among criminal justice employees: A meta-analysis*. *Criminology*. 2020; 58: 619–644. <https://doi.org/10.1111/1745-9125.12251>
- Workman-Stark A. 'Me, us, and Them': Policing and the Dynamics of Identity Work. *Police Quarterly*. 2025; 28: 78–103. <https://doi.org/10.1177/10986111241246311>
- Yesberg JA, Sargeant E, Fenn L, Murphy K, Madon N. Fairness in policing: how does internal procedural justice translate to external procedural justice? *Policing: a Journal of Policy and Practice*. 2024; 18. <https://doi.org/10.1093/polic/paee126>