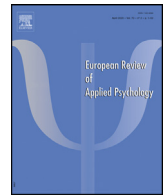




Available online at  
**ScienceDirect**  
[www.sciencedirect.com](http://www.sciencedirect.com)

Elsevier Masson France  
**EM|consulte**  
[www.em-consulte.com](http://www.em-consulte.com)



Original article

# Justice sensitivity's impact on strike outcomes in Germany and France

## *L'impact de la sensibilité à la justice sur les résultats des grèves en Allemagne et en France*

Denise Vesper<sup>1,\*</sup>, Cornelius J. König, Laura Pöschel

Department of Psychology, Universität des Saarlandes, Saarbrücken, Germany



### INFO ARTICLE

#### Historique de l'article :

Reçu le 5 mai 2023

Reçu sous la forme révisée  
le 29 janvier 2024

Accepté le 17 mars 2024

### ABSTRACT

**Introduction.** – Injustices are often described as causes for strikes.

**Objective.** – With this study, we aimed to test if trait justice sensitivity (victim and observer sensitivity) was related to strike attitudes, willingness to strike, and non-normative strike behavior and if these relations were mediated by the traits of anger or empathy. Additionally, we compared samples from two countries (Germany and France) in the respective measures.

**Method.** – We collected data from 424 participants (231 were German, 193 were French) using an online questionnaire and established scales. Hypotheses were tested using structural equation modeling.

**Results.** – We observed that the effect of victim justice sensitivity on willingness to strike and non-normative strike behavior was mediated by anger. Furthermore, empathy mediated the effect of observer justice sensitivity on the legitimacy of strikes and the support of strikers. The overall model was not moderated by country.

**Conclusion.** – We showed for the first time that trait variables also play a significant role in strike outcomes. Our results imply that national differences in industrial relations systems did not influence our model significantly. Results also indicated (unexpectedly) that French participants reported significantly lower willingness to strike, significantly more negative reactions towards strikes, less legitimacy of strikes, and less support of strikers compared to the German sample – differences that warrant further research examining potential reasons.

© 2024 Les Auteurs. Publié par Elsevier Masson SAS. Cet article est publié en Open Access sous licence CC BY (<http://creativecommons.org/licenses/by/4.0/>).

### R É S U M É

**Introduction.** – Les injustices sont souvent décrites comme des causes de grève.

**Objectif.** – Dans cette étude, nous avons cherché à vérifier si les traits de sensibilité à la justice (sensibilité de la victime et de l'observateur) étaient liés aux attitudes de grève, à la volonté de faire grève et aux comportements de grève non normatifs, et si ces relations étaient médiatisées par les traits de colère ou d'empathie. En outre, nous avons comparé des échantillons de deux pays (Allemagne et France) pour les mesures respectives.

**Méthode.** – Nous avons recueilli des données auprès de 424 participants (231 Allemands et 193 Français) à l'aide d'un questionnaire en ligne et d'échelles validées. Les hypothèses ont été testées à l'aide d'un modèle d'équation structurelle.

**Résultats.** – Les résultats montrent que l'effet de la sensibilité à la justice pour les victimes sur la volonté de faire grève et sur les comportements de grève non normatifs est médiatisé par la colère. En outre, l'empathie médie l'effet de la sensibilité à la justice de l'observateur sur la légitimité des grèves et le soutien des grévistes. Le modèle global n'est pas été modéré par le pays.

#### Keywords :

Strikes  
 Attitudes  
 Justice sensitivity  
 Industrial relations  
 Unions

#### Mots clés :

Grèves  
 Attitudes  
 Sensibilité à la justice  
 Relations industrielles  
 Syndicats

\* Corresponding author. Universität des Saarlandes, Arbeits- & Organisationspsychologie, Campus A1 3, 66123 Saarbrücken, Germany.

Adresse e-mail : [denise.vesper@uni-saarland.de](mailto:denise.vesper@uni-saarland.de) (D. Vesper).

<sup>1</sup> X: @denise.vesper.

*Conclusion.* – Nous avons montré pour la première fois que les variables liées aux traits de caractère jouent également un rôle important dans les résultats des grèves. Nos résultats impliquent que les différences nationales dans les systèmes de relations industrielles n'ont pas influencé notre modèle de manière significative. Les résultats indiquent également (de manière inattendue) que les participants français ont fait état d'une volonté de grève nettement plus faible, de réactions nettement plus négatives à l'égard des grèves, d'une légitimité moindre des grèves et d'un soutien moindre aux grévistes par rapport à l'échantillon allemand – des différences qui justifient des recherches plus approfondies sur les raisons potentielles de ces différences.

© 2024 Les Auteurs. Publié par Elsevier Masson SAS. Cet article est publié en Open Access sous licence CC BY (<http://creativecommons.org/licenses/by/4.0/>).

For a long time, strikes have been an important bargaining tool, and they still attract much media attention. To name just two recent examples, there were the “yellow vests” conducting general strikes in France (Nossiter, 2019) and a big strike of ground staff from a major airline in Germany (Deutsche Welle, 2022). The number of strikes in some countries has even increased over the last years (e.g., Poydock et al., 2022), indicating a higher frequency of collective action among workers. In other countries, it at least remained stable despite the pandemic (Vandaele, 2022).

Although psychological research on strikes or unions has been rather scarce (Cascio & Aguinis, 2008), a common topic that was addressed in previous studies was the question of justice perceptions when it comes to strikes or collective action in general. Perceived injustice is considered to be a crucial aspect that leads people to participate in collective action (e.g., van Zomeren et al., 2008). For instance, Kelloway et al. (2007) determined that perceived distributive injustice significantly predicted intent to participate in collective action. However, the examined injustices were always situation-specific. If people perceive such injustices as more or less severe could however depend on their dispositional justice sensitivity (Schmitt et al., 2005).

Hence, what is missing so far is an answer to the question if trait differences in being prone to perceive injustices (i.e., justice sensitivity) also influence strike-related outcomes such as willingness to strike, strike attitudes, and non-normative strike behavior. Knowing more about predictors of willingness to strike can be crucial for unions as well as employers to assess the likelihood of strike participation among their members. Hence, this study had the aim to test if justice sensitivity (divided into two subdimensions, victim and observer justice sensitivity) predicts strike-related outcomes and whether this relation is mediated by either anger (for victim justice sensitivity) or empathy (for observer justice sensitivity), which were both also measured as trait variables. To heighten the generalizability of these assumed models, we tested them in two samples originating from two countries with considerable differences in their strike statistics and work regulations: Germany and France.

## 1. Theoretical background

People differ in their reactions to perceived injustices (Major & Deaux, 1982), and they also differ dispositionally in their perception of the severity of perceived injustices (Schmitt et al., 2005). This trait is called justice sensitivity, which can be understood as a personality characteristic as it reflects stable and consistent differences in the perception of and reaction to perceived injustice (Schmitt, 1996). People who are more sensitive to injustices experience stronger emotional and behavioral reactions towards these injustices. Justice sensitivity can be further differentiated into four facets: sensitivity for self-experienced injustice (victim justice sensitivity), sensitivity for observed injustice (observer justice sensitivity), sensitivity for passively benefitting from injustices (beneficiary justice sensitivity), and sensitivity for actively self-

inducing injustices (perpetrator justice sensitivity; Schmitt et al., 2010). These dimensions differ in their relations with prosocial and selfish dispositions (Schmitt et al., 2005). However, as only victim and observer justice sensitivity seem to be relevant for strikes, we focus on these two facets in this study.

### 1.1. Victim justice sensitivity, anger, and strike-related outcomes

Victim justice sensitivity was found to be related to distrust and a tendency to take revenge (Schmitt et al., 2005). Hence, people with a high victim justice sensitivity are afraid of being disadvantaged and tend to focus on injustices related to themselves. Those high in victim justice sensitivity also fear being exploited and thus react more strongly to injustices (Gollwitzer et al., 2009). Furthermore, these people are less likely to act for the benefit of others (Gollwitzer & Rothmund, 2011).

Being prone to perceive self-experienced injustices also leads people to react with more anger towards an unfair distribution (Gollwitzer et al., 2005). Anger, a negative emotional reaction that contains physiological arousal (Buss & Perry, 1992), was empirically found to be a predominant emotional reaction to perceived injustice (e.g., Törestad, 1990). Furthermore, in a study about a protest against a German public construction project, Rothmund et al. (2014) observed that victim justice sensitivity was positively correlated to anger about the political decision process. Anger also plays an important role in the social identity model of collective action (SIMCA, van Zomeren et al., 2008), where perceived injustice is assumed to lead to anger.

If trait differences in justice sensitivity lead to more anger, it should also influence strike-related outcomes such as willingness to strike, strike attitudes, and non-normative strike behavior. Willingness to strike is the intent to participate in a collective action among participants and is a valid predictor for actual participation in strikes (Martin, 1986). Strike attitudes consist of cognitive aspects (e.g., legitimacy of strikes), emotional aspects (e.g., emotional reactions to strikes), and behavioral aspects (e.g., support for strikers as a behavioral reaction, Vesper & König, 2022). Non-normative strike behavior comprises illegal strike actions and potentially violent behavior that violate the norms and rules of a social system (Wright et al., 1990). If people experience anger, they are more likely to participate in protests – this is not only a prediction of the SIMCA (van Zomeren et al., 2008) but has also empirically been found for other kinds of protest than strikes (e.g., Frijda, 1986; Jost et al., 2012; Rothmund et al., 2014). Furthermore, anger was reported to predict normative (e.g., Tausch et al., 2011) and non-normative collective action behavior (Owuamalam et al., 2016).

In the SIMCA (van Zomeren et al., 2008), an emotion-focused path leads from perceived injustice via anger to participation in collective action. Hence, anger should act as a mediator for the relation between perceived injustices and collective action. However, research based on the SIMCA tends to examine perceived injustices and anger to specific topics or situations rather than as traits

of involved parties. In contrast, we examine how the traits of victim justice sensitivity and anger are related to different strike-related outcomes. Taken together, we propose that victim justice sensitivity is related to anger and via anger to strike-related outcomes. More formally, we hypothesize<sup>2</sup>:

- H<sub>1</sub>.** Victim justice sensitivity is positively correlated with anger.
- H<sub>2</sub>.** Victim justice sensitivity is positively correlated with positive strike attitudes, willingness to strike, and non-normative collective action behavior.
- H<sub>3</sub>.** Anger is positively correlated with positive strike attitudes, willingness to strike, and non-normative collective action behavior.
- H<sub>4</sub>.** Anger mediates the relation between victim justice sensitivity and the dependent variables strike attitudes, willingness to strike, and non-normative collective action behavior.

### 1.2. Observer justice sensitivity, empathy, and strike-related outcomes

The second dimension of justice sensitivity is observer justice sensitivity, which is associated with prosocial dispositions such as perspective-taking and social responsibility (Schmitt et al., 2005). Thus, individuals with high observer justice sensitivity are concerned with justice for others and about the well-being of others (Gollwitzer et al., 2009). Furthermore, those high in observer justice sensitivity were also more empathetic, with empathy being defined as the ability to comprehend the thoughts and feelings of others (Decety & Lamm, 2006).

According to the SIMCA, an important predictor for collective action is perceived group identification (van Zomeren et al., 2008). More empathetic people are also more able to identify with different groups (Miyazono & Inarimori, 2021). However, previous research on strikes and protests has scarcely considered empathy despite empathy appearing to be a crucial antecedent for third-party support of strikes. An initial study that assessed the intention to act collectively on behalf of Black Lives Matter (Selvanathan et al., 2018) observed that positive contact with Black Americans led to more empathy and anger about the injustice experienced by the Black American community by White Americans. In their study, empathy was positively related to willingness to act collectively and support the Black Lives Matter movement (Selvanathan et al., 2018). Hence, this can be interpreted as the first evidence that empathy is related to willingness to act collectively, attitudes to collective actions, and probably also non-normative strike behavior.

People with a dispositional higher observer justice sensitivity were also more willing to participate in political protests when the political decision processes were perceived to be unfair (Rothmund et al., 2014). Additionally, they were more willing to sacrifice their resources to restore justice (Lotz et al., 2011). In their study, Lotz et al. (2011) showed that people who were more sensitive to observed injustices punished those who divided their property unfairly causing them financial harm. Hence, it might be possible that people high in observer justice sensitivity also support strikes more to punish employers who treat their employees unfairly.

When perceiving injustices, observers were found to react with empathy depending on their justice sensitivity (Baumert & Schmitt, 2009). Empathy also led to prosocial behavior (Gollwitzer et al., 2009), as did observer justice sensitivity (Schmitt et al., 2005). Thus,

as people high in observer justice sensitivity were more empathetic and more willing to agree to strike-related outcomes, and empathy is also assumed to be related to strike-related outcomes, we propose that empathy might mediate the effect of observer justice sensitivity on strike-related outcomes. Put more formally:

- H<sub>5</sub>.** Observer justice sensitivity is positively correlated with empathy.
- H<sub>6</sub>.** Observer justice sensitivity is positively correlated with positive strike attitudes, willingness to strike, and non-normative collective action behavior.
- H<sub>7</sub>.** Empathy is positively correlated with positive strike attitudes, willingness to strike, and non-normative strike behavior.
- H<sub>8</sub>.** Empathy mediates the relation between observer justice sensitivity and the dependent variables strike attitudes, willingness to strike, and non-normative strike behavior.

### 1.3. Differences and similarities between France and Germany

We introduced the respective models of victim justice sensitivity via anger and observer justice sensitivity via empathy on strike-related outcomes. To not only test these models but also to examine if they are generalizable in different countries, we decided to collect data from two countries: Germany and France. Although these two countries differ considerably in their strike statistics and regulations, the models should operate similarly in both samples, as the underlying psychological mechanisms should be the same in both countries. However, some similarities and differences in the industrial relations system of both countries warrant mentioning (summarized in Table 1). In Germany, employees are represented in a dual system with sectorial bargaining by unions and local work councils (Larsson, 2014), which likely explains the low level of conflict (and strikes) in Germany. This stands in stark contrast to France, where strikes are also seen as an important means to influence the state to take action (Larsson, 2014). Hence, strikes are often signs of political protest in France. Trade unions in France are also traditionally conflict-ridden and politicized (Le Queux & Sainsaulieu, 2010). Strikes are considered a cultural good in France and represent the most influential way to achieve unions' goals (Ancelevici, 2008). These industrial relations systems differences make it likely that French people report higher values in their willingness to strike, strike attitudes, and non-normative strike behavior, but preliminary evidence from the only study so far points to higher values among Germans (Vesper & König, 2023a). Furthermore, data collection took place in a border region of Germany and France. This could further influence the results given that cross-border identities might be more similar compared to national identities. It could thus be possible that the participants in this study report more similar attitudes due to their frequent interactions with people from across the border and considering the history of the regions at the border with frequent changes of nationalities up to 20th century (Hölpel, 2012). Data from a survey among German and French cross-border workers indicated that they did only differ in the legitimacy perception of strikes (Vesper & König, 2023b). Given this inconsistency, we pose the following research questions:

- Research question 1: Do French and German participants differ in their willingness to strike?
- Research question 2: Are there differences in strike attitudes between French and German participants?
- Research question 3: Do French and German participants differ in their agreement to non-normative strike behavior?

<sup>2</sup> Please note that the preregistration of this study (<https://aspredicted.org/s9n4y.pdf>) uses a slightly differing numbering of the hypotheses (because a better flow of arguments was achieved with the new numbering during the write-up).

**Table 1**  
Similarities and differences in the industrial relations systems of France and Germany.

System Characteristics	France	Germany
Bargaining coverage (Bryson et al., 2011)	High	High
Level of bargaining (Sano & Williamson, 2008)	Sector or industry	Sector or industry
Hostility of the industrial relations system	Polarized/state-centered industrial relations system – fragmented trade unions and high hostility from employers/organizations (Larsson, 2014)	Social-partnership with corporatist relation between employers, trade unions, and the state (Dribbusch, 2016)
Union density (International Labour Organization, 2019a)	7.9%	17.0%
Number of days lost due to strikes	Worldwide number one (Frindert et al., 2021) 1,738,537 in 2016 (International Labour Organization, 2019b)	209,435 in 2016 (International Labour Organization, 2019b)
Strike regulations (Warneck, 2007)	Individual right guaranteed by the constitution	Based on case law and certain regulations such as linkage to a collective agreement and initiation of a strike by a union Unions follow the ultima ratio principle – strikes as a last resort
Peace obligation (prohibits strikes and other forms of collective action during the time of collective agreement; Warneck, 2007)	No	Yes

Finally, our study allows us to explore whether German and French participants differ in their levels of anger, empathy, observer justice sensitivity, and victim justice sensitivity. Given the lack of theoretical arguments for German-French differences and the dearth of empirical studies that compared these variables in the two countries (the two exceptions being Chopik et al., 2017, and Marx, 2020), we decided to only pose research questions regarding the differences between the two countries:

- Research question 4: Do French and German participants differ in their levels of anger?
- Research question 5: Are there differences in empathy between French and German participants?
- Research question 6: Do French and German participants differ in their observer and victim justice sensitivity?

## 2. Methods

### 2.1. Sample

Data were collected through an (online) survey among French and German employees, who were approached via social media, trade unions, or in front of their companies between August 2020 and March 2021. In total, 581 participants completed the study in the region where France and Germany share a border. After data collection, several steps were conducted to ensure data quality and to exclude careless responders (Meade & Craig, 2012). First, six participants chose the option “No” when asked if their entries could be included in scientific analyses (Meade & Craig, 2012); hence, they were not included in the analyses. Second, to take care of swift completion, we checked if any participant needed less than two seconds per item on average (Huang et al., 2012), which was the case for eight participants who were also excluded from further analyses. Third, long strings (i.e., how often a participant selected the same answer option in sequence) greater than ten items (where the “elbow” occurred, see Johnson, 2005) were determined ( $n = 10$ ). The analyses in this study were performed without these participants (Johnson, 2005; Niessen et al., 2016). Fourth, only participants who were currently employed were included in the analyses, leading to the exclusion of 62 participants. Finally, we excluded participants who were cross-border workers (living in one country but working in another,  $n = 71$ ). This proce-

cedure was based on the specifications in the study’s preregistration (available at <https://aspredicted.org/s9n4y.pdf>). After these steps,  $N = 424$  participants were included in the analyses. Of these, 50.0% were female, 49.8% were male, and 0.2% were non-binary. This final sample consisted of 231 German and 193 French participants, with an overall mean age of 41.21 years ( $SD = 11.56$ ). In the German sample, the mean age was 40.02 years ( $SD = 11.87$ ), and in the French sample 42.62 years ( $SD = 11.04$ ).

### 2.2. Materials

To assess *justice sensitivity*, we used five items per subscale of the German justice sensitivity scale from Schmitt et al. (2005), which also exists in a French translation (Faccenda et al., 2008). The items are answered on a scale from 0 = *totally disagree* to 5 = *totally agree*. A sample item for victim justice sensitivity is “It annoys me when I am treated worse than others,” and a sample item for observer justice sensitivity is “I am outraged when someone is undeservedly worse off than others.” The reliability of the scales was good, with Cronbach’s  $\alpha_{\text{victim justice sensitivity}} = .82$  and  $\alpha_{\text{observer justice sensitivity}} = .87$  (all reliabilities per sample can be found in the Supplement material).

*Anger* was measured with six items from Buss and Perry (1992). A sample item of this measure is “I get upset quickly, but my anger also evaporates quickly.” We used the German translation from Herzberg (2003) and the French version from Bouchard (2007). The items were answered on a scale from 1 = *totally inaccurate* to 5 = *totally accurate*. The reliability of the scale can be considered satisfactory, Cronbach’s  $\alpha = .80$ .

To assess *empathy*, we used four items from the subscale “empathic concern” from the Interpersonal Reactivity Index (Davis, 1983). For the French sample, we used the items from Braun et al. (2015) and Gilet et al. (2013), and for the German sample the version from Paulus (2009). The items are answered on a scale from 1 = *totally inaccurate* to 5 = *totally accurate*. A sample item is “I have warm feelings for people less fortunate than me.” The scale exhibited satisfactory reliability in both samples, Cronbach’s  $\alpha = .78$ .

We used the factors of *negative reactions to strikes*, *legitimacy of strikes*, and *support of strikers* from the Strike Attitudes and Behavioral Reactions Scale (with three items for each factor, Vesper & König, 2022) to assess *strike attitudes*. Items were rated on a five-point Likert scale ranging from 1 = *do not agree* to 5 = *agree*. We used the



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

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Observer justice sensitivity	4.76	0.95								
2. Victim justice sensitivity	3.94	1.13	.22**							
3. Anger	2.66	0.80	.17**	.27**						
4. Empathy	3.88	0.67	.43**	.10*	.09					
5. Negative reactions to strikes	2.08	1.04	-.10*	.10*	-.07	-.12*				
6. Legitimacy of strikes	3.99	0.84	.15**	-.03	.11*	.21**	-.64**			
7. Support of strikers	3.69	0.98	.22**	-.06	.10	.25**	-.62**	.65**		
8. Willingness to strike	3.78	1.10	.21**	.01	.16**	.16**	-.54**	.60**	.62**	
9. Non-normative strike behavior	3.31	1.63	.27**	.04	.19**	.16**	-.46**	.53**	.59**	.56**

Values in square brackets indicate the 95% confidence interval for each correlation.

\*  $p < .05$ .

\*\*  $p < .01$ .

translated French version and the original German version, translated from Vesper and König (2023c). The three scales showed good reliabilities in the two samples, Cronbach's  $\alpha_{\text{legitimacy}} = .81$ ,  $\alpha_{\text{negative reactions}} = .88$ , and  $\alpha_{\text{support}} = .84$ .

To measure *willingness to strike*, we used four items from Vesper and König (2022) answered on a five-point Likert scale ranging from 1 = *not at all* to 5 = *very likely*. As with the strike attitude scale, we used the translated French version and the original German version from Vesper and König (2023c). An example item is "I would strike for more days off." The reliability of the scale was good, Cronbach's  $\alpha = .89$ .

*Non-normative strike behavior* was measured with five items from Adam-Troian et al. (2020). These French items were translated into German via a back-translation process (Schaffer & Riordan, 2003). The items were answered on a scale from 1 = *totally disagree* to 7 = *totally agree*. A sample item was "I would occupy public facilities as a sign of protest." All items can be found in Table S1. The scale exhibited satisfactory reliability, Cronbach's  $\alpha = .84$ .

### 2.3. Procedure

Participants had to choose their preferred language first; this was followed by a short welcome page explaining the purpose of the study. Then, participants had to agree to the data privacy statement and give demographic information on their gender, age, current employment status, job experience in years, country of living, the country they worked in, union membership, and previous strike participation. These were followed by the scales assessing justice sensitivity, anger, empathy, strike attitude, willingness to strike, and non-normative strike behavior. At the end of the questionnaire, participants had the opportunity to give comments, indicate if their data could be included in scientific analyses, and could participate in a lottery to win one of four gift cards.

### 2.4. Statistical analyses

All analyses were conducted using R Studio (R Core Team, 2019) and the R packages dplyr v. 1.0.8 (Wickham et al., 2021), lavaan (Rosseel, 2012), MBESS v 4.9.1 (Kelley, 2022), psych v 2.2.5 (Revelle, 2019), sirt v 3.11-21 (Robitzsch, 2021). Data and code are available at [https://osf.io/9jtnd/?view\\_only=a9b8c6ba3d7448b98a872d4cddf8e17d](https://osf.io/9jtnd/?view_only=a9b8c6ba3d7448b98a872d4cddf8e17d).

## 3. Results

### 3.1. Preliminary analyses

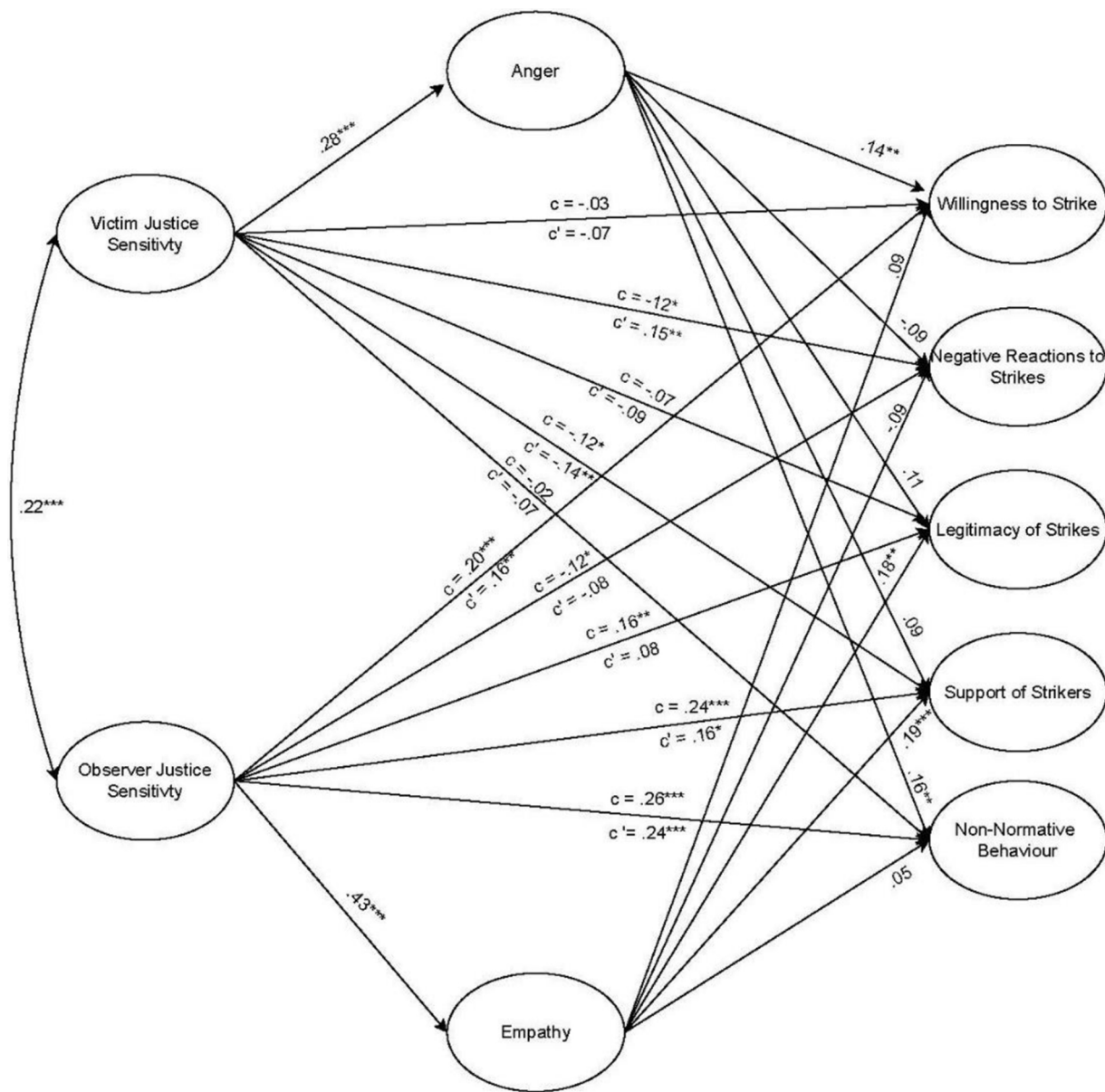
We conducted separate confirmatory factor analyses for each scale and each sample to test the fit of the proposed model before conducting the structural equation modeling analyses. This procedure is suggested by Sass (2011). All results regarding these CFAs and the measurement equivalence testing for the assessed scales between the two samples can be found in the Supplemental online material. All CFAs exhibited good model fit in both samples and (partial) scalar measurement equivalence was established for all scales. Means, standard deviations, and zero-order correlations can be found in Table 2.

### 3.2. Test of hypotheses

To test the hypothesis that victim justice sensitivity and anger were positively related, we calculated the correlation between the two variables ( $H_1$ , see Table 2). Victim justice sensitivity was significantly positively correlated with anger, offering support for  $H_1$ . Regarding the hypothesis that victim justice sensitivity should be correlated with willingness to strike, strike attitudes, and non-normative strike behavior ( $H_2$ ), we also calculated the respective correlations. The only significant correlation was with negative reactions to strikes ( $r = .10$ ), lending no support for  $H_2$  as only one correlation was significant and this correlation was unexpectedly positive, indicating that people with higher victim justice sensitivity report more negative reactions to strikes.

Anger was significantly positively related to willingness to strike, legitimacy of strikes, and non-normative strike behavior. This partly supports  $H_3$ , as three out of five assumed correlations were significant and in the expected direction.

Using structural equation modeling, we computed an overall model that included victim and observer justice sensitivity, anger and empathy, and the strike-related outcomes (see Fig. 1). To test if anger mediates the relation between victim justice sensitivity and the dependent variables ( $H_4$ ), we calculated the indirect effects of victim justice sensitivity on the dependent variables via anger. The 95% CI of the bootstrapped indirect effects excluded zero for willingness to strike legitimacy of strikes, and non-normative strike behavior (Table 3). These results indicated a significant indirect effect on these dependent variables as mediated by anger, lending partial support to  $H_5$ , see also Fig. 1.



**Fig. 1.** Overall model. Values are standardized loadings.  $c$  represents the total effect of victim/observer justice sensitivity on the outcomes;  $c'$  represents the direct effect of victim/observer justice sensitivity on the outcomes. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 3**  
Indirect effects for victim justice sensitivity via anger.

	Estimate	SE	95% CI	
			Lower	Upper
Willingness to strike	.04*	.02	.01	.08
Negative reactions to strike	-.02	.01	-.05	.004
Legitimacy of strikes	.02*	.01	.001	.05
Support of strikers	.02	.01	-.001	.05
Non-normative strike behavior	.06**	.02	.02	.12

The 95% CI represents the 95% confidence interval for the bootstrapped indirect effects.

\*  $p < .05$ .  
\*\*  $p < .01$ .

For observer justice sensitivity, we obtained significant correlations in the expected directions with empathy and all dependent variables, supporting  $H_5$  and  $H_6$ . Empathy was also significantly related to all dependent variables, supporting  $H_7$ . To test the hypothesis that empathy mediates the relation between observer justice

sensitivity and the dependent variables ( $H_8$ ), we used the same overall model calculated for the victim justice sensitivity-anger relations. The 95% CI of the bootstrapped indirect effects included zero for willingness to strike, negative reactions to strike, and non-normative behavior, but not for the legitimacy of the strike and

**Table 4**  
Indirect effects for observer justice sensitivity via empathy.

	Estimate	SE	95% CI	
			Lower	Upper
Willingness to strike	.04	.03	-.01	.10
Negative reactions to strike	-.04	.03	-.09	.01
Legitimacy of strikes	.07**	.02	.03	.12
Support of strikers	.09**	.03	.04	.14
Non-normative strike behavior	.04	.04	-.04	.12

The 95% CI represents the 95% confidence interval for the bootstrapped indirect effects.

\*\*  $p < .01$ .

support of strikers (Table 4). Hence, the assumption that empathy mediates the effect of observer justice sensitivity on the dependent variables was only supported for the legitimacy of strikes and support of strikers (see Fig. 1).

Finally, we tested whether the country moderated the overall model. To do this, we ran a multi-group path analysis simultaneously comparing all paths across groups and tested for overall group differences using a Wald test (Choate, 2019). Country was no significant moderator of the overall model,  $Wald(22)=9.52$ ,  $p=.613$ . Hence, the overall model can be assumed to be similar across both samples.

### 3.3. Exploring the research questions

As the scales were (partial) scalar equivalent between the two samples, we also conducted a multivariate analysis of variance for all examined variables with country as the factor. We obtained overall significant differences,  $F(9, 414)=13.11$ ,  $p<.001$ , Pillai-Spur=0.22. Post-hoc tests revealed that the two samples differed significantly in their observer justice sensitivity,  $F(1, 422)=9.25$ ,  $p=.002$ , willingness to strike,  $F(1, 422)=47.75$ ,  $p<.001$ , negative reactions to strikes,  $F(1, 422)=28.29$ ,  $p<.001$ , legitimacy of strikes,  $F(1, 422)=67.76$ ,  $p<.001$ , support of strikers,  $F(1, 422)=14.04$ ,  $p<.001$ , and non-normative strike behavior,  $F(1, 422)=8.86$ ,  $p=.003$ . French participants reported a higher observer justice sensitivity, lower willingness to strike, more negative reactions to strikes, lower legitimacy of strikes, lower support of strikers, and less non-normative strike behavior than German participants, which indicates that differences between both samples regarding all strike-related outcomes (RQ1–3) and observer justice sensitivity (RQ6) exist, but no differences exist regarding the traits of anger, empathy, and victim justice sensitivity (RQ4–6). All means can be found in Tables S2 and S3.

## 4. Discussion

This study aimed to show that trait variables such as justice sensitivity, anger, and empathy are also important predictors for strike-related outcomes next to different perceptions of specific situations. Although perceptions of injustice were found to be important predictors for participation and support of strikes (Kelloway et al., 2007; Leung et al., 1993; van Zomeren et al., 2008), our study extends these results by showing that trait differences in justice sensitivity, anger, and empathy are also significantly associated with strike-related outcomes. Particularly observer justice sensitivity was an important antecedent of willingness to strike, strike attitudes, and non-normative strike behavior – whereas victim justice sensitivity was only related to negative reactions to strikes but indirectly affected willingness to strike, legitimacy of strikes, and non-normative strike behavior via anger. Indirect effects for observer justice sensitivity via empathy were only significant for the legitimacy of strikes and support of strikers, des-

pite empathy being associated with all strike-related outcomes. It can thus be assumed that the dispositions to perceive injustices, experience anger, and empathy influence how people approach strike-related outcomes in a significant way. Being more sensitive to observed injustices leads people to be more willing to engage in strikes and non-normative strike behavior themselves, experience fewer negative reactions to strikes, report more legitimacy of strikes, and be more willing to support strikers. The last two aspects are (partly) explained by being more empathetic with other people. Hence, those who are more sensitive to observed injustices experience more empathy with other people and this leads them to legitimize and support their behavior. Current models of collective action (e.g., SIMCA, van Zomeren et al., 2008) should thus consider adopting dispositional aspects to their frameworks.

Regarding victim justice sensitivity, strikes can be considered a strategy to protect one's rights in the workplace. Our results indicate that the link between victim justice sensitivity and three of the five strike-related outcomes (i.e., willingness to strike, legitimacy of strikes, and non-normative strike behavior) runs indirectly via anger. People with higher victim justice sensitivity were more likely to report higher trait anger, confirming previous research (Gollwitzer et al., 2005; Rothmund et al., 2014). This aligns with the notion that people high in victim justice sensitivity fear being exploited and treated unfairly compared to others (Gollwitzer et al., 2009). People who are more likely to experience anger were also more willing to participate in strikes. Furthermore and nicely fitting to previous studies (e.g., Owuamalam et al., 2016; Tausch et al., 2011), anger was positively related to non-normative strike behavior, supporting the assumption that those who are angrier tend to show more non-normative behavior. The indirect effects of victim justice sensitivity via anger on the strike-related outcomes were also significant for three of five outcomes. However, this result must be considered with caution as victim justice sensitivity was not significantly related to any outcome other than negative reactions to strikes, and anger was only significantly related to willingness to strike, legitimacy of strikes, and non-normative strike behavior. Anger has previously been found to mediate the effect of injustice on willingness to participate in collective actions (van Zomeren et al., 2008). Future research should therefore further investigate whether the indirect effects we found can be replicated.

As people high in victim justice sensitivity are more prone to show self-centered, self-protective behavior and are afraid of being disadvantaged (Gollwitzer et al., 2009), it is comprehensible that victim justice sensitivity was positively related to negative reactions to strikes. Strikes could affect their daily lives and hence lead to negative effects, such as having to change travel plans. Thus, people who are more prone to perceive self-experienced injustice might view strikes, in general, more as something that affects them negatively. Furthermore, it is possible to assume that people who are prone to perceive injustices that affect themselves are also more likely to experience stress, strain, and anger by strikes. Hence, they might more easily evaluate themselves as victims of a strike, leading to more negative reactions via experiencing anger. This is in

line with findings that people high in victim justice sensitivity were more willing to protest perceived injustices (Schmitt, 1996) and that people with a higher victim justice sensitivity showed a stronger emotional reactance against political reforms that contained personal or group-based disadvantage (Tausch et al., 2011).

Observer justice sensitivity was significantly related to all strike-related outcomes in the expected directions. Thus, people with a higher observer justice sensitivity expressed more willingness to strike, fewer negative reactions to strikes, more legitimacy of strikes, more support of strikers, and a higher intention to engage in non-normative strike behavior. This fits with previous research that observer justice sensitivity goes along with more prosocial behavior and willingness to punish those who are made responsible for the injustices (Lotz et al., 2011; Rothmund et al., 2014). Support of strikers and legitimacy of strikers can be assumed to be prosocial behavior, thus leading people with higher observer justice sensitivity to reporting more of those behaviors. Furthermore, non-normative strike behavior could be assumed to be a punishment for those responsible for the observed injustices. In addition, we confirmed previous research (Gollwitzer et al., 2009; Schmitt et al., 2005) in finding that participants with a higher observer justice sensitivity reported being generally more empathetic. Empathy was also significantly related to all strike-related outcomes in the expected direction. This indicates that people with higher empathy are also willing to exhibit prosocial behaviors such as supporting strikers or legitimizing strikes, as well as being willing to participate in (non-normative) collective action. Together with the research from Selvanathan et al. (2018), our study is a first step in showing that empathy might be a relevant construct in strike and collective action research. It thus supports and extends the idea of Heaphy et al. (2022) that prosocial emotions such as empathetic concern influence employee voice, in our case collective voice. This is further supported by the two significant indirect effects of observer justice sensitivity via empathy on the legitimacy of strikes and support of strikers. People who perceive more observed injustices are hence more empathetic and this leads them to perceive strikes as more legitimate and strikers as deserving of their support.

However, we did not find significant indirect effects of observer justice sensitivity via empathy on willingness to strike, negative reactions to strikes, and non-normative strike behavior. This warrants further research as both observer justice sensitivity and empathy were significantly related to these outcomes. One reason might be that we assessed empathy as a trait. It could be possible that the specific empathy with potential strikers mediates the relation between observer justice sensitivity and the strike-related outcomes.

We were able to show that the proposed model was similar in both samples, indicating that despite their clear differences in industrial relations systems and strike statistics, the assumed model operated similarly in Germany and France. Nonetheless, we did obtain significant mean differences between both countries in observer justice sensitivity, willingness to strike, negative reactions to strike, legitimacy of strikes, support of strikers, and non-normative strike behavior. French participants reported being more observer justice sensitive than German participants. As no previous study directly examined differences between these two countries in their justice sensitivity, we can only invite future research to test if this difference can be replicated and what the underlying reasons might be.

Regarding the differences in the strike-related outcomes, these were contrary to the assumptions that French participants would report more positive attitudes to strikes based on the higher frequency of strikes. However, they replicate previous findings from Vesper and König (2023a) who also observed that German participants reported the highest willingness to strike and most positive strike attitudes compared to French and British participants. Rea-

sons for this might be that French employees have more experience with strikes and view strikes not as positive as German participants. This also warrants future research to examine the causes of these differences.

#### 4.1. Limitations, future research, and implications

As with all studies, this study is not without limitations, the most important one being that our data is cross-sectional, thus making causal claims impossible. Nonetheless, the reverse direction from behaviors (willingness to strike, non-normative strike behavior, support of strikers) and attitudes (negative reactions to strikes, legitimacy of strikes) to victim and observer justice sensitivity as personality traits seems unlikely. Furthermore, as we found the same results in two samples for which we established measurement equivalence, we are cautiously optimistic that our model is generalizable and valid. Future research is nonetheless encouraged to conduct longitudinal studies to enhance the probability of claiming causal directions.

Future research could additionally test if victim justice sensitivity is related to the strike-related outcomes when it comes to a real strike. We can assume that being struck by a strike as an affected third party might influence the relation of victim justice sensitivity to the strike-related outcomes. Furthermore, future research should also test the traits of justice sensitivity, empathy, and anger as additions to the SIMCA (van Zomeren et al., 2008). As the aim of our study was not to test the SIMCA, we did not examine perceived injustices, group-based anger, or group-based efficacy, but a future study could be designed as a SIMCA test while implementing the trait variables that we tested. Our study indicates that trait differences might already be able to explain to some extent why certain people participate in strikes and why others do not. Additionally, further cross-cultural replications are warranted to ensure that the underlying psychological logic of our model functions similarly despite differences in industrial relations systems. Finally, the results of Fortin et al. (2020) imply that a variety of justice rules exist. Incorporating these together with justice sensitivity into research on strikes and collective action seems promising to enhance our understanding of why employees participate in strikes.

From a practical perspective, willingness to strike is important for unions to examine how successful a potential call for strike would be. Hence, knowing about the willingness to strike can be crucial for the planning of bargaining procedures (Barling et al., 1992). This also applies to employers who need to plan further activities. Previous research on willingness to strike has found that it was higher among those who perceived a high instrumentality of participation (Kelloway et al., 2007), had social support from their colleagues (Jansen et al., 2017), were loyal to their union (Barling et al., 1992; Born et al., 2013), and experienced injustices (Cloutier et al., 2013; Kelloway et al., 2007). Our study added to these results by showing that observer justice sensitivity and anger are also important predictors for willingness to strike, opening further avenues for unions and employers to deal with willingness to strike.

## 5. Conclusion

This study aimed to examine if the traits of victim justice sensitivity and observer justice sensitivity were related to willingness to strike, strike attitudes, and non-normative strike behavior and whether these relations were mitigated via the traits of anger and empathy. Observer justice sensitivity and empathy were significantly related to all outcomes, whereas victim justice sensitivity was just related to negative reactions to strikes, and anger was



only related to willingness to strike, legitimacy of strikes, and non-normative strike behavior. We were also able to show that the assumed model was similar in samples from Germany and France. Future research can further test these relations for example by integrating these traits in the social identity model of collective action (van Zomeren et al., 2008) and thus extend the research from perceptual differences in individual situations to trait differences. For unions and employers, our study shows that it is important to consider how people perceive injustices and how empathetic they are when it comes to strikes. Finally, further cross-cultural replications are needed as industrial relations systems vary widely, but the underlying processes might be similar across cultures.

### Data availability

The data is available at [https://osf.io/9jtnd/?view\\_only=a9b8c6ba3d7448b98a872d4cdf8e17d](https://osf.io/9jtnd/?view_only=a9b8c6ba3d7448b98a872d4cdf8e17d).

### Funding statement

We did not receive funding for this research.

### Disclosure of interest

The authors declare that they have no competing interest.

### Ethics approval

Ethical approval was not required for this study in accordance with the local legislation and institutional requirements of Saarland University.

### Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.erap.2024.101008>.

### Références

- Adam-Trojan, J., Bonetto, E., Araujo, M., Baidada, O., Celebi, E., Dono Martin, M., et al. (2020). Positive associations between anomia and intentions to engage in political violence: Cross-cultural evidence from four countries. *Peace and Conflict: Journal of Peace Psychology*, 26(2), 217–223. <https://doi.org/10.1037/pac0000385>
- Ancelovici, M. (2008). Social movements and protest politics. In A. Cole, P. Le Galès, & J. D. Levy (Eds.), *Developments in French politics* (Vol. 4) (pp. 74–91). Palgrave Macmillan.
- Barling, J., Fullagar, C., Kelloway, E. K., & McElvie, L. (1992). Union loyalty and strike propensity. *Journal of Social Psychology*, 132(5), 581–590. <https://doi.org/10.1080/00224545.1992.9713897>
- Baumert, A., & Schmitt, M. (2009). Justice-sensitive interpretations of ambiguous situations. *Australian Journal of Psychology*, 61(1), 6–12. <https://doi.org/10.1080/00049530802607597>
- Born, M. J., Akkerman, A., & Torenvlied, R. (2013). Trust your boss or listen to the union? Information, social identification, trust, and strike participation. *Mobilization: An International Quarterly*, 18(2), 161–178.
- Bouchard, J. (2007). *Validation de la version française du Aggression Questionnaire auprès de deux échantillons : étudiants universitaires (étude 1) et adultes non-recrutés en milieu universitaire (étude 2)* [Validation of the French version of the Aggression Questionnaire in two samples: University students (study 1) and non-academic adults (study 2)]. Université du Québec à Chicoutimi.
- Braun, S., Rosseel, Y., Kempenaers, C., Loas, G., & Linkowski, P. (2015). Self-report of empathy: A shortened French adaptation of the interpersonal reactivity Index (IRI) using two large Belgian samples. *Psychological Reports*, 117(3), 735–753. <https://doi.org/10.2466/08.02.PR0.117c23z6>
- Bryson, A., Forth, J., & Laroche, P. (2011). Evolution or revolution? The impact of unions on workplace performance in Britain and France. *European Journal of Industrial Relations*, 17(2), 171–187. <https://doi.org/10.1177/0959680111400907>
- Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, 63(6), 452–459. <https://doi.org/10.1037/0022-3514.63.3.452>
- Cascio, W. F., & Aguinis, H. (2008). Research in industrial and organizational psychology from 1963 to 2007: Changes, choices, and trends. *Journal of Applied Psychology*, 93(5), 1062–1081. <https://doi.org/10.1037/0021-9010.93.5.1062>
- Choate, A. (2019). *Mediation and path analysis using lavaan*. RPub by RStudio. <https://rpubs.com/alliechoate/502710>
- Chopik, W. J., O'Brien, E., & Konrath, S. H. (2017). Differences in empathic concern and perspective taking across 63 countries. *Journal of Cross-Cultural Psychology*, 48(1), 23–38. <https://doi.org/10.1177/0022022116673910>
- Cloutier, J., Denis, P. L., & Bilodeau, H. (2013). The dynamics of strike votes: Perceived justice during collective bargaining. *Journal of Organizational Behavior*, 34(7), 1016–1038. <https://doi.org/10.1002/job.1838>
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037/0022-3514.44.1.113>
- Decety, J., & Lamm, C. (2006). Human empathy through the lens of social neuroscience. *The Scientific World Journal*, 6, 1146–1163. <https://doi.org/10.1100/tsw.2006.221>
- Deutsche Welle. (2022). *Germany: Lufthansa ground staff strike, hundreds of flights canceled*. Deutsche Welle. <https://www.dw.com/en/germany-lufthansa-ground-staff-strike-hundreds-of-flights-canceled/a-62610242>
- Dribbusch, H. (2016). Organizing through conflict: Exploring the relationship between strikes and union membership in Germany. *Transfer: European Review of Labour and Research*, 22(3), 347–365. <https://doi.org/10.1177/1024258916650423>
- Faccenda, L., Pantaléon, N., Bois, J. E., & Schmitt, M. (2008). Adaptation and validation of the German sensitivity to befallen injustice scales into French. *European Journal of Psychological Assessment*, 24(3), 141–149. <https://doi.org/10.1027/1015-5759.24.3.141>
- Fortin, M., Cropanzano, R., Cugueró-Escofet, N., Nadisic, T., & Van Wagoner, H. (2020). How do people judge fairness in supervisor and peer relationships? Another assessment of the dimensions of justice. *Human Relations*, 73(12), 1632–1663. <https://doi.org/10.1177/0018726719875497>
- Frijda, N. H. (1986). *The emotions*. Cambridge University Press.
- Frindert, J., Dribbusch, H., & Schulten, T. (2021). *WSI-Arbeitskampfbilanz 2020: Streiks unter den Bedingungen der Corona-Pandemie* [WSI Labor Struggle Review 2020: Strikes under the conditions of the corona pandemic]. *WSI-Report*, 66, 1–18.
- Gilet, A.-L., Mella, N., Studer, J., Grünh, D., & Labouvie-Vief, G. (2013). Assessing dispositional empathy in adults: A French validation of the interpersonal reactivity index (IRI). *Canadian Journal of Behavioural Science*, 45(1), 42–48. <https://doi.org/10.1037/a0030425>
- Gollwitzer, M., & Rothmund, T. (2011). What exactly are victim-sensitive persons sensitive to? *Journal of Research in Personality*, 45(5), 448–455. <https://doi.org/10.1016/j.jrp.2011.05.003>
- Gollwitzer, M., Rothmund, T., Pfeiffer, A., & Ensenbach, C. (2009). Why and when justice sensitivity leads to pro- and antisocial behavior. *Journal of Research in Personality*, 43(6), 999–1005. <https://doi.org/10.1016/j.jrp.2009.07.003>
- Gollwitzer, M., Schmitt, M., Schalke, R., Maes, J., & Baer, A. (2005). Asymmetrical effects of justice sensitivity perspectives on prosocial and antisocial behavior. *Social Justice Research*, 18(2), 183–201. <https://doi.org/10.1007/s11211-005-7368-1>
- Heaphy, E., Lilius, J., & Feldman, E. (2022). Moved to speak up: How prosocial emotions influence the employee voice process. *Human Relations*, 75(6), 1113–1139. <https://doi.org/10.1177/00187267211007539>
- Herzberg, P. Y. (2003). Faktorstruktur, Gütekriterien und Konstruktvalidität der deutschen Übersetzung des Aggressionsfragebogens von Buss und Perry [Psychometric Evaluation and validity of the German translation of the aggression questionnaire by Buss and Perry]. *Zeitschrift für Differentielle und Diagnostische Psychologie*, 24(4), 311–323. <https://doi.org/10.1024/0170-1789.24.4.311>
- Hölpel, T. (2012). The French-German borderlands: Borderlands and nation-building in the 19th and 20th centuries. In *European History Online*. Leibniz Institute of European History. <http://ieg-ego.eu/en/threads/crossroads/border-regions/thomas-hoepel-the-french-german-borderlands#section.6>
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, 27(1), 99–114. <https://doi.org/10.1007/s10869-011-9231-8>
- International Labour Organization (ILO). (2019a). *International Labour Organization Database (ILOSTAT)—Union membership*. <https://ilostat.ilo.org/topics/union-membership/>
- International Labour Organization (ILO). (2019b). *International Labour Organization Database (ILOSTAT)—Work stoppages*.
- Jansen, G., Akkerman, A., & Vandaele, K. (2017). Undermining mobilization? The effect of job flexibility and job instability on the willingness to strike. *Economic and Industrial Democracy*, 38(1), 99–117. <https://doi.org/10.1177/0143831X14559782>
- Johnson, J. A. (2005). Ascertaining the validity of individual protocols from web-based personality inventories. *Journal of Research in Personality*, 39(1), 103–129. <https://doi.org/10.1016/j.jrp.2004.09.009>
- Jost, J. T., Chaikalis-Petrtsis, V., Abrams, D., Sidanius, J., Van Der Toorn, J., & Bratt, C. (2012). Why men (and women) do and don't rebel: Effects of system justification on willingness to protest. *Personality and Social Psychology Bulletin*, 38(2), 197–208. <https://doi.org/10.1177/0146167211422544>
- Kelley, K. (2022). *MBESS: The MBESS R Package (4.9.1)* [Computer software]. <https://cran.r-project.org/package=MBESS>
- Kelloway, E. K., Francis, L., Catano, V. M., & Teed, M. (2007). Predicting protest. *Basic and Applied Social Psychology*, 29(1), 13–22. <https://doi.org/10.1080/01973530701330884>

- Larsson, B. (2014). Transnational trade union action in Europe: The significance of national and sectoral industrial relations. *European Societies*, 16(3), 378–400. <https://doi.org/10.1080/14616696.2013.813958>
- Le Queux, S., & Sainsaulieu, I. (2010). Social movement and unionism in France: A case for revitalization? *Labor Studies Journal*, 35(4), 503–519. <https://doi.org/10.1177/0160449X10379644>
- Leung, K., Chiu, W., & Au, Y. (1993). Sympathy and support for industrial actions: A justice analysis. *Journal of Applied Psychology*, 78(5), 781–787. <https://doi.org/10.1037/0021-9010.78.5.781>
- Lotz, S., Baumert, A., Schlösser, T., Gresser, F., & Fetchenhauer, D. (2011). Individual differences in third-party interventions: How justice sensitivity shapes altruistic punishment: Individual differences in third-party interventions. *Negotiation and Conflict Management Research*, 4(4), 297–313. <https://doi.org/10.1111/j.1750-4716.2011.00084.x>
- Major, B., & Deaux, K. (1982). Individual differences in justice behavior. In J. Greenberg, & R. L. Cohen (Eds.), *Equity and justice in social behavior* (pp. 43–76). Academic Press.
- Martin, J. E. (1986). Predictors of individual propensity to strike. *ILR Review*, 39(2), 214–227. <https://doi.org/10.1177/001979398603900204>
- Marx, P. (2020). Anti-elite politics and emotional reactions to socio-economic problems: Experimental evidence on “pocketbook anger” from France, Germany, and the United States. *British Journal of Sociology*, 71(4), 608–624. <https://doi.org/10.1111/1468-4446.12750>
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, 17(3), 437–455. <https://doi.org/10.1037/a0028085>
- Miyazono, K., & Inarimori, K. (2021). Empathy, altruism, and group identification. *Frontiers in Psychology*, 12, 749315. <https://doi.org/10.3389/fpsyg.2021.749315>
- Niessen, A. S. M., Meijer, R. R., & Tendeiro, J. N. (2016). Detecting careless respondents in web-based questionnaires: Which method to use? *Journal of Research in Personality*, 63, 1–11. <https://doi.org/10.1016/j.jrp.2016.04.010>
- Nossiter, A. (2019). *General strike in France challenges Macron's latest ambition for change*. The New York Times. <https://www.nytimes.com/2019/12/05/world/europe/france-strike-macron.html>
- Owuamalam, C. K., Rubin, M., & Issmer, C. (2016). Reactions to group devaluation and social inequality: A comparison of social identity and system justification predictions. *Cogent Psychology*, 3(1), 1188442. <https://doi.org/10.1080/23311908.2016.1188442>
- Paulus, C. (2009). *Der Saarbrücker Persönlichkeitsfragebogen SPF (IRI) zur Messung von Empathie [The Saarbruecker Personality Questionnaire SPF (IRI) to measure empathy]*. <http://psydok.sulb.uni-saarland.de/voll-texte/2009/2363>
- Poydock, M., Mangundayao, I., McNicholas, C., & Schmitt, J. (2022). *Data show major strike activity increased in 2021 but remains below pre-pandemic levels*. Economic Policy Institute ([epi.org/244965](http://epi.org/244965)).
- R Core Team. (2019). *R: A language and environment for statistical computing* (3.6.1) [Computer software]. R Foundation for Statistical Computing. <https://www.r-project.org/>
- Revelle, W. (2019). *psych: Procedures for personality and psychological research* (1.9.12) [Computer software].
- Robitzsch, A. (2021). *sirt: Supplementary Item Response Theory Models (R package version 3.11-21)* [Computer software]. <https://cran.r-project.org/package=sirt>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(i02), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Rothmund, T., Baumert, A., & Zinkernagel, A. (2014). The German “Wutbürger”: How justice sensitivity accounts for individual differences in political engagement. *Social Justice Research*, 27, 24–44. <https://doi.org/10.1007/s11211-014-0202-x>
- Sano, J., & Williamson, J. B. (2008). Factors affecting union decline in 18 OECD countries and their implications for labor movement reform. *International Journal of Comparative Sociology*, 49(6), 479–500. <https://doi.org/10.1177/0020715208098614>
- Sass, D. A. (2011). Testing measurement invariance and comparing latent factor means within a confirmatory factor analysis framework. *Journal of Psychoeducational Assessment*, 29(4), 347–363. <https://doi.org/10.1177/0734282911406661>
- Schaffer, B. S., & Riordan, C. M. (2003). A review of cross-cultural methodologies for organizational research: A best-practices approach. *Organizational Research Methods*, 6(2), 169–215. <https://doi.org/10.1177/1094428103251542>
- Schmitt, M. (1996). Individual differences in sensitivity to befallen injustice (SBI). *Personality and Individual Differences*, 21(1), 3–20. [https://doi.org/10.1016/0191-8869\(96\)00028-1](https://doi.org/10.1016/0191-8869(96)00028-1)
- Schmitt, M., Baumert, A., Gollwitzer, M., & Maes, J. (2010). The justice sensitivity inventory: Factorial validity, location in the personality facet space, demographic pattern, and normative data. *Social Justice Research*, 23(2–3), 211–238. <https://doi.org/10.1007/s11211-010-0115-2>
- Schmitt, M., Gollwitzer, M., Maes, J., & Arbach, D. (2005). Justice sensitivity: Assessment and location in the personality space. *European Journal of Psychological Assessment*, 21(3), 202–211. <https://doi.org/10.1027/1015-5759.21.3.202>
- Selvanathan, H. P., Techakesari, P., Tropp, L. R., & Barlow, F. K. (2018). Whites for racial justice: How contact with Black Americans predicts support for collective action among White Americans. *Group Processes & Intergroup Relations*, 21(6), 893–912. <https://doi.org/10.1177/1368430217690908>
- Tausch, N., Becker, J. C., Spears, R., Christ, O., Saab, R., Singh, P., et al. (2011). Explaining radical group behavior: Developing emotion and efficacy routes to normative and nonnormative collective action. *Journal of Personality and Social Psychology*, 101(1), 129–148. <https://doi.org/10.1037/a0022728>
- Törestad, B. (1990). What is anger provoking? A psychophysical study of perceived causes of anger. *Aggressive Behavior*, 16(1), 9–26 ([https://doi.org/10.1002/1098-2337\(1990\)16:1<9::AID-AB2480160103>3.0.CO;2-R](https://doi.org/10.1002/1098-2337(1990)16:1<9::AID-AB2480160103>3.0.CO;2-R))
- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, 134(4), 504–535. <https://doi.org/10.1037/0033-2909.134.4.504>
- Vandaele, K. (2022). *Strike map of Europe*. ETUI. <https://www.etui.org/strikes-map>
- Vesper, D., & König, C. J. (2022). Ever thought about strikes? Development of a scale to assess attitudes and behavioral reactions to strikes. *Journal of Business and Psychology*, 37(6), 1275–1298. <https://doi.org/10.1007/s10869-022-09801-7>
- Vesper, D., & König, C. J. (2023a). Differences in strike attitudes and behavioural reactions among British, German, and French samples. *Workers of the World*, 1(11), 58–91. <https://doi.org/10.5281/zenodo.8384487>
- Vesper, D., & König, C. J. (2023b). Do French and German cross-border workers differ in their strike attitudes and willingness to strike? In F. Clement, R. Belkacem, I. Pigeron-Piroth, & C. Wille (Eds.), *Le travail frontalier en Europe : réalités et défis—Cross-border work in Europe: Realities and challenges* (pp. 161–172). Larcier.
- Vesper, D., & König, C. J. (2023c). Measurement equivalence of the English, German, and French versions of the Strike Attitude and Behavioral Reactions Scale (SABeRS). *European Journal of Psychological Assessment*, <https://doi.org/10.1027/1015-5759/a000807>
- Warneck, W. (2007). *Strike rules in the EU27 and beyond: A comparative overview*. ETUI-REHS.
- Wickham, H., François, R., Henry, L., & Müller, K. (2021). *dplyr: A grammar of data manipulation (R package version 1.0.5)* [R]. <https://cran.r-project.org/package=dplyr>
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, 58(6), 994–1003. <https://doi.org/10.1037/0022-3514.58.6.994>